



introduction to design equity



Introduction to Design Equity

Introduction to Design Equity

KRISTINE MILLER, PH.D.

UNIVERSITY OF MINNESOTA LIBRARIES PUBLISHING
MINNEAPOLIS



Introduction to Design Equity by Kristine Miller is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/), except where otherwise noted.



This book was produced using Pressbooks.com, and PDF rendering was done by PrinceXML.

Contents

<u>Acknowledgements and Dedication</u>	vi
<u>Chapter 1 - Introduction</u>	1
<u>Chapter 2: Learning to Talk about Racism</u>	8
<u>Chapter 3: Why History Matters to Design Equity</u>	12
<u>Chapter 4 - Health Equity and the Built Environment</u>	15
<u>Chapter 5 - Transportation Equity</u>	23
<u>Chapter 6 - Information Equity</u>	32
<u>Chapter 7 - What is Design Thinking and What does it have to do with Equity?</u>	40
<u>Chapter 8 - Discipline-Specific Professional Design Processes and Equity</u>	53

Acknowledgements and Dedication

Acknowledgements

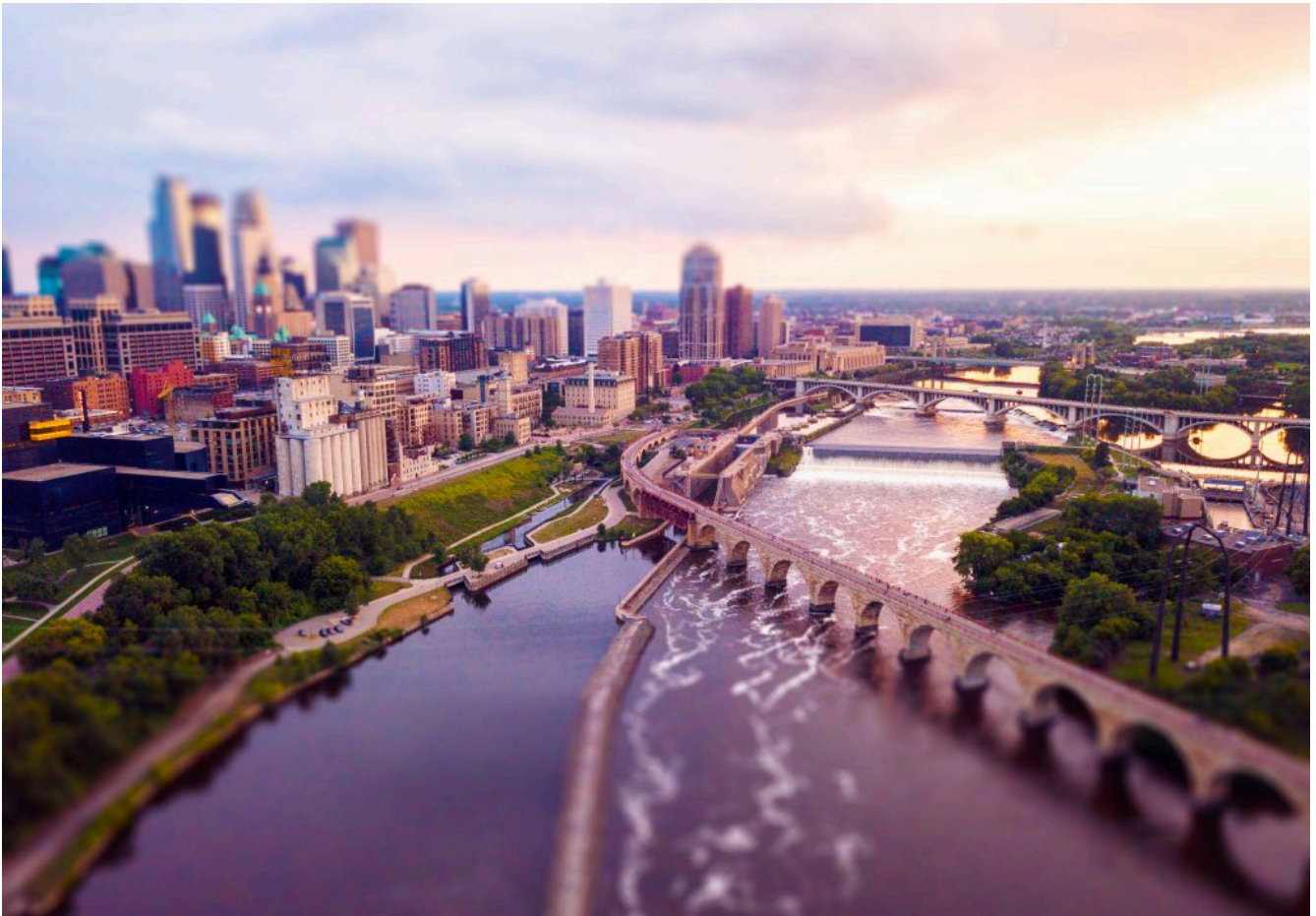
The cover image shows buttons designed by [Juxtaposition Arts](#) teaching artists and apprentices.

Many people helped create this resource. Thanks to Kristi Jensen, who guided and encouraged me through the entire process of open source online publishing and put lots (and lots) of time and energy into the final product. Thanks to friends and colleagues who provided feedback, support, and editing, including: Valentine Cadieux, Carrie Christensen, DeAnna Cummings, Roger Cummings, Vince deBritto, Diane Brown, Diane Dodge, Adrienne Doyle, Gail Dubrow, Joe Favour, Tom Fisher, Cindy Garcia, Tia Simone Gardner, Melvin Giles, Pat Hemmis, Clint Hewitt, Kate Hopper, Janaya Martin, Neeraj Mehta, Kathy Mouachepao, Kristen Murray, Megan Phinney, Lynda Schneekloth, Roozbeh Shirazi, Robert Shibley, Amanda Smoot, Billy Weber, and Craig Wilkins. Thanks to the Department of Landscape Architecture, College of Design, University of Minnesota; the University of Minnesota Libraries; and the Bush Foundation for their support of the project at different times in its development. And thanks to research assistants Ali Boese, Leslie Johnson, Rachel McNamara, Haily Schmitz, and Linda Spohr.

Dedication

This book is dedicated to the memory of [Kris Nelson](#) who helped found [ReMix](#) in 2005 and is deeply missed. [Kris's and DeAnna Cummings's 2011 article on art, design, and equity](#) has been a touchstone for many of the chapters.

Chapter 1 - Introduction



View of downtown Minneapolis and the Mississippi River
Photo by [Nicole Harrington](#)

San Francisco, Portland, Austin, Madison, and Minneapolis are considered some of the country's best-designed and most politically liberal cities. Mention of each brings to mind public parks, ample bike lanes, eclectic music scenes, colleges, creatives, and craft beer. Each has focused public funds on livability investments like transit, public spaces, arts, and entertainment. Each has said that equity—fair and just access to opportunities and resources for all of its citizens—is a central concern of its place and policy-making. But as David Dahmer asks in his article titled “The Harsh Truth about Progressive Cities,” (Dahmer, 2015) why are these cities some of the most unjust in the U.S.?

My own hometowns of Minneapolis and St. Paul have, in the last ten years, topped the charts for livable neighborhoods and beautiful parks. A 2015 article in *The*

Atlantic, titled “The Miracle of Minneapolis,” said that “No other place mixes affordability, opportunity, and wealth so well” (Thompson, 2015). But what the article did not point out—though many readers immediately did—is that, livability awards aside, and official rhetoric about the importance of equity aside, the Twin Cities is still one of the worst places in the country to be Black or Native American. That’s right, one of the worst. And this is on important measures like education, health, and jobs.

This comes as a big surprise to many white Minnesotans. We are used to looking at statistics in aggregate, not separated by race or ethnicity. In aggregate, we look pretty good. So we pat ourselves on the back and assume that those aggregated statistics hold for all Minnesotans. We assume we are good people with good leaders. We assume “those problems” don’t plague Northern cities. Cities where NPR is well funded and politicians, at least until you hit the suburbs, are mainly left of center.

So why do such affluent and liberal cities have some of the biggest racial disparities in the country? And why do other left-leaning cities like San Francisco, Portland, Austin, and Madison sit right there at the bottom with us?¹

Why doesn’t “good” design and planning mean better lives for everyone?

Why doesn’t “good” design and planning mean better lives for everyone? We know the built environment has a huge impact on health, mobility, jobs, safety, and social networks—but why are these impacts so unevenly felt across a city?

These questions aren’t new, not even in the design fields. They are, however, receiving renewed attention in several public interest design programs across the country where students, faculty, and practitioners are teaming up to address the gap between our professional pledge to serve “the public good” and the reality that the public we have been serving best is mainly white and often affluent. These programs are partnering with non-profits and municipalities to build community gardens, rethink transit systems, and advocate for better and more affordable housing. Not all of these programs are new. Many, in fact, can trace their roots back to the 1970s, as designers tried to chart their paths within larger social justice movements.

What should we advocate

Although it’s exciting to me that the pendulum towards socially responsible design education and practice has

1. See “The Harsh Truth about Progressive Cities” at <https://madison365.com/what-no-one-wants-to-talk-about-race-and-progressive-cities/>.

**for? What skills do
designers need to have?
What do they need to
know?**

swung back, I worry that unless we start to have some difficult conversations with each other and with our students, decision makers, and clients, this resurgence will fall flat and, in the process, do more harm than good. The pendulum will swing again and sheafs

of well-intended designs will gather dust in flat files, reports, and hard drives. Instead of having transit that connects people to jobs and home, parks and public spaces that are well maintained and active, and housing that is affordable and safe and beautiful, we will be left to explain why nothing tangible came of the design process. How do we make sure this doesn't happen? What should we advocate for? What skills do designers need to have? What do they need to know?

This book, originally created for a Public Interest Design (PID) course at the University of Minnesota called Design Equity, was written with the hope that it will become a resource for professional designers, non-profit and government partners, and community members. In conversations about how we want to ground the entire PID program, the word *equity* became a way to wrestle with what we mean by public interest. Equity means fair and just access to opportunities and resources and, in our minds, should be a fundamental goal of all public interest design projects and programs.

In the past few years, unfortunately, the term equity has become ubiquitous and its definition murky. It seems like every government report or new foundation initiative has incorporated the word into its title. In “Is Equity the New Coconut Water?” Vu Le comments on the term’s overuse in Seattle: You can’t walk down the street without hearing someone saying something like, “Equity. Equity, equity, equity. Blah blah community engagement Seahawks equity” (Vu, 2014).

If the term has lost its intended meaning, should we, as Vu Le asks, put it back on the grocery store shelf next to the kombucha? Does it still have value to designers working for social justice? I think we need to keep it (or take it back, depending on your view). Its prevalence presents ample opportunities to spark conversations about its real meaning. Each time the word is spoken—in a public meeting or behind closed doors, in a foundation report or a design proposal—there is an opening, a moment when an important and difficult conversation about systemic racial disparities could occur.

There is value in the specific and surprising turn of phrase required in defining equity. We see the word *equity* and think *equal*—everyone receiving the same amount of benefits or

**But equity does not mean
equal because the playing
field is not level. We don’t**

suffering the same risks related to any new policy or project. That seems fair. But equity does not mean equal, because the playing field is not level. We don't start from a point of equality.

start from a point of equality.

Throughout our history and up to today, unfair policies have privileged certain groups of people over others. Privilege exists when one group has something of value that others do not because of the groups they belong to, not because of what they have done or failed to do.

This disjuncture between equity as equal and equity as fair can fuel the conversations needed to make San Francisco, Portland, Austin, Madison, and Minneapolis/St. Paul into places where everyone has the chance to flourish—conversations that acknowledge and examine the history of this privilege and its specific impact on people in each city.

Equity is an ethical principle, a position on what is good and right. It can be defined as “fair and just access for all,” and refers to the fair distribution of impacts—both benefits and costs. To quote Braveman and Gruskin, two health equity researchers:

...equity...is the absence of systematic disparities...between groups with different levels of underlying social advantage/disadvantage—that is, wealth, power, or prestige. Inequities...put groups of people who are already socially disadvantaged (for example, by virtue of being poor, female, and/or members of a disenfranchised racial, ethnic, or religious group) at further disadvantage.... (Braveman & Gruskin, 2003, p. 254)

Equity does not mean numerically equal. It does not mean, for example, that the same amount of transit should be available to all people. Why? For low income families, who spend 45% of their income on transportation, a change in routes or schedules can mean less time at home, and missing the bus because of inconsistent scheduling can mean losing a job. For these families, the costs and risks are higher than they are for me. I have direct access to two cars, know lots of people with access to cars who could help in a pinch, and won't get fired if I'm late for work.

Another reason to take hold of the word *equity* is that if we don't clearly define and deploy the word, it will be usurped by those with the most power—usually those with the least interest in making better outcomes for people who historically and presently have the most at stake. It's not just professionals or government officials who say “equity” but mean equal; it's also community members involved in public participation processes. Depending on your implicit definition of equity,

you are going to argue for very different design and planning approaches.² Ones that either benefit everyone or benefit a few.

...we tend to define environmental design by its end products, not its processes.

One challenge to creating equity-driven design strategies is that we tend to define environmental design by its end products, not its processes. We see parks, streets, sidewalks, plazas, housing, neighborhoods, and transit systems. We don't see who had a say in the decisions,


where the money came from, and which people the project does or doesn't benefit. We can, however, train ourselves to see these "hidden" outcomes in the present by looking at examples from the past. Environmental design history can also show us how we got into this inequitable state.

In the next chapter we will examine decades of design decisions that helped create today's uneven playing field. The history of environmental design shows us how the physical qualities we see in our cities, combined with what we don't see—the laws, policies, and processes—have allowed disparities to grow.

Why do these disparities persist? Why is it so hard to achieve equity? I think one of the biggest challenges of creating equitable cities is that we are afraid to talk about personal and institutional racism. If we can't talk about racism, we can't talk about equity. By focusing on racial equity I don't mean to ignore or downplay issues of gender, disability, or age. Instead I strive to get at the issues that have led to such shameful statistics in my own and many other U.S. communities. In Chapter 3 we will look at how personal and institutional racism work, why these discussions are so difficult, and how we can learn to get over our fears and engage in effective conversations.

...one of the biggest challenges of creating equitable cities is that we are afraid to talk about institutional and personal racism.


Next we will dig into some of the equity fields that are most related to

2. For instance, researchers studying post-Katrina planning efforts found that some residents advocated for equity as a way of acknowledging and addressing ongoing patterns of discrimination which "left different groups of people with much less." Others advocated for equity as equal and supported projects and policies that did nothing to address fundamental historic disparities. (Brand 2015), 249. <http://login.ezproxy.lib.umn.edu/login?url=http://jpe.sagepub.com/content/35/3/249.full.pdf+html> 

environmental design, like health, information, and transportation. How is equity understood in these fields? How does each field relate to environmental design products and processes? What solutions have been developed in these fields to bring us to equity? Is there a role for designers in their work?

Finally, we will bring our conversation back to design practice. How, given all that we have learned about equity, can environmental design help create equitable cities? Where are leverage points for generating more equitable outcomes? What is possible? What are the pitfalls? How does equity-driven design work differ from traditional design practice? How do we pay for it? How do we evaluate it? And most importantly, how do we sustain it over the long haul? Our cities didn't become inequitable overnight. Remaking them as places of opportunity for everyone is going to be a long haul.

Additional Resources

- Angela Glover Blackwell, CEO of PolicyLink, a national non-profit that shares information and success stories about creating equitable communities, defines equity and presents an “Equity Manifesto.” Available at <http://putnam-consulting.com/philanthropy-411-blog/equity-is/>
- “What is the difference between equity and equality?” A reading and quiz developed by women's health researchers. Available at <http://sgba-resource.ca/en/concepts/equity/distinguish-between-equity-and-equality/>
- Angela Glover Blackwell on the benefits of equity. Available at <https://www.youtube.com/watch?v=BUMTjSj9TBo>
- Rising to the Challenge: Define Equity: A description of health equity showing that people within the same social group may require different kinds of assistance to lead healthy lives. Available at <http://sgba-resource.ca/en/concepts/equity/define-equity/>
- Brand, Anna Livia. The politics of defining and building equity in the twenty-first century. (2015). *Journal of Planning Education and Research*, (3), 249–264. A peer-reviewed journal article that shows how varying definitions of equity among community members lead to different community planning goals. Available at <http://jpe.sagepub.com/content/35/3/249.full.pdf+html> 

Works Cited

Braveman, P. & Gruskin, S. (2003). Defining equity in health. *Journal of Epidemiology and Community Health*, 57(4), 254–258. Available at <https://doi.org/10.1136/jech.57.4.254>

Dahmer, David. (2015, September 3). The harsh truth about progressive cities. Retrieved November 11, 2018 from <https://madison365.com/what-no-one-wants-to-talk-about-race-and-progressive-cities/>

Le, Vu. (2014, September 8). Is equity the new coconut water? Retrieved November 11, 2018, from <http://nonprofitaf.com/2014/09/is-equity-the-new-coconut-water/>

Thompson, Derek. (2015). The miracle of Minneapolis. *The Atlantic* (2), 30–32. Available at <https://www.theatlantic.com/magazine/archive/2015/03/the-miracle-of-minneapolis/384975/>

Endnotes

Chapter 2: Learning to Talk about Racism



Design Equity Class with community leader and educator Melvin Giles at the Aurora St. Anthony Peace Garden in St. Paul. 2015

During the second week of the Design Equity class we begin to learn how to talk about racism. I remember the night before the “racism talk” the first time I taught this class, four years ago; I was a nervous wreck. The session came early in the semester, before I knew all of the students, before they really knew me or each other. How would the session go? I was lucky to have two friend-colleagues, Melvin Giles and Megan Phinney, two of the co-founders of the Urban Farm and Garden

Alliance in St. Paul, MN,¹ leading our conversation; I knew they would be respectful and supportive of the students. In addition to being two of the kindest people I know, they are experts in leading these conversations. So why couldn't I fall asleep? Where was all of this fear coming from?

Melvin and Megan anticipate that most people feel fearful when faced with a conversation about racism in a group of people they don't know very well. So after introducing themselves, they begin by passing around small slips of paper and asking everyone to write down something they find scary or difficult in talking about racism. They then gather and redistribute the slips so that each person reads aloud someone else's fear. We learn that for some, fear of talking about racism is fear of being judged, of saying the wrong thing, of being labeled a racist. For others, it is fear of being pitied or misunderstood or viewed as angry. For some, it is all of the above. Some students share memories of painful conversations about racism with friends or family members that went really wrong really fast. And some sincerely believe that they "don't see race," so why bother?

The fact that there are so many different reasons why talking about racism stresses us out tells us two very important things about how racism persists and why conversations about race can fall apart. First, we have all had very different experiences in our lives, and if we haven't experienced something like racism it's hard to understand how pervasive it is. Our individual ways of seeing the world are so much a part of who we are that they remain mostly unconscious, but they underlie our responses to everyone and every idea we encounter.

Second, the fear of being labeled as a bad person and the defensiveness that can result from this fear can keep us from having meaningful discussions. Language around racism is confusing, so it's no wonder this fear is so strong. Jay Smooth says:

...anytime we're dealing with race issues, we are dealing with a social construct that was not born out of any science or reason or logic, we are grappling with a social construct that was not designed to make sense....It's a dance partner that's designed to trip us up. (Smooth, 2011)

There are a lot of words and ideas and concepts tied to the social construct of race, and some seem to conflict with one another. For example, how does racism exist when race does not? We use the term *racism* to talk about how people are judged on the basis of their appearance and culture, while at the same time we know that skin color and culture do not define separate human races. We know it now, but for a long time people in power promoted the idea that there were separate races, using it as justification for certain groups to be treated unfairly.

1. See The Urban Farm and Garden Alliance website at <http://urbanfarmandgardenalliance.org/>

Should we choose our words thoughtfully? Of course. Should we let fear of saying the wrong thing prevent us from having really important conversations? No. The Jay Smooth video does a great job of suggesting ways to handle the fact that, when it

...when it comes to conversations about race, we are going to make mistakes.

comes to conversations about race, we are going to make mistakes. I think about his “dental analogy,” (where he wonders why people can’t accept being told that something they said sounded racist, with the same openness that people accept being told that they have food in their teeth) a lot when I feel apprehensive upon discovering yet another pocket of racism in my own thinking or actions. Instead of letting defensiveness take over, I try to see my mistakes as opportunities to expand my understanding of the world beyond my personal experiences.

An interview with Beverly Daniel Tatum, clinical psychologist, professor, and President of Spelman College, digs further into how racism persists and is experienced by people day-to-day.² Tatum points out many common situations that can impact people in very different ways, depending on their skin color, and that can strengthen particular views of how the world works. As much as I think about racism, her interview showed me many situations I had never thought about, because I’d never needed to; it is truly eye-opening.

Physician and epidemiologist Dr. Camara Jones further explains the persistence of racism by showing how it operates at different levels. In her video,³ Dr. Jones uses a gardening allegory to describe personally mediated, internalized, and institutionalized racism, and how these different types work together. Her clarification of abstract terms using vivid imagery can help us grapple with a tangled social construct.

With the help of Melvin and Megan and of resources like these, what used to be the most stressful class session has become one of my favorites, one in which I feel that we start to gel as a group of people trying to figure things out together. It makes me feel like a student, because there is a lot about my own world view and my own assumptions and biases that I haven’t yet uncovered or questioned. And it makes me feel that I’m starting to become the teacher I want to be—one who helps students have valuable conversations.

2. See an Interview with Beverly Daniel Tatum (edited transcript) at http://www.pbs.org/race/000_About/002_04-background-03-04.htm
3. See “The Gardener” video, in which Camara Jones discusses the three levels of racism at <https://youtu.be/ktj4jGmUs6Y>

I no longer worry about this class session like I did three years ago. Melvin and Megan continue to create generous and thoughtful environments in which participants can really talk to each other, and students continue to prove that they are ready to have these difficult conversations. Even though they don't yet know each other well, they come in ready to hear people out and talk through the readings. Instead of seeing this class session as the "racism" session, I now see it as a starting point for the whole semester—a starting point grounded in a sincere desire for us to figure out where we are and where we want to go.

Additional Resources

- Daniel Tatum, B. (2003). Race – The Power of an Illusion, Background Readings. Available at http://www.pbs.org/race/000_About/002_04-background-03-04.htm
- Western States Center. (n.d.). *Dismantling Racism: A Resource Book for Social Change Groups*. Available at <http://westernstates.center/tools-and-resources/Tools/Dismantling%20Racism>
The Resource Book from Western States Center Dismantling Racism Project is a rich compilation of articles, poetry, worksheets, and references used to supplement information presented in their workshops. The materials “originate from a variety of sources and build on the work of many people and organizations, including (but not limited to) Kenneth Jones, Tema Okun, Andrea Ayvazian, Beverly Daniel-Tatum, Joan Olsson, James Williams, the Peace Development Fund, the Exchange Project, Grassroots Leadership, Equity Institute, the People’s Institute for Survival and Beyond, the Lillie Allen Institute, and David Rogers and Moira Bowman of the Western States Center.”

Work Cited

Smooth, J. (n.d.). My TEDx Talk, “How I Stopped Worrying and Learned to Love Discussing Race.” Retrieved November 11, 2018, from http://www.illdoctrine.com/2011/11/my_tedx_talk_how_i_stopped_wor.html

Endnotes

Chapter 3: Why History Matters to Design Equity



A pedestrian bridge between the divided Rondo neighborhood in St. Paul, MN. Once a thriving African American community, Rondo was split in two by the construction of Interstate Highway 94 in the 1970s. Today Rondo leaders are advocating for more substantial connections. Photo by [Tony Webster](#). [CC-BY 2.0](#)

The history of how cities in the United States were designed, built, and rebuilt helps answer two important questions: Why doesn't equity mean everyone getting the same thing? And why doesn't equity mean equal? We will learn that the way cities were designed and planned meant, for so long, that many people got much less, or nothing, or had things taken from them. In some cases the taking was completely legal and based on unfair laws and regulations; in others, the taking was illegal. The term *equity* matters, and matters in terms of how we design and build our cities. For too long these processes and places have allowed some groups to access opportunities while others are left behind.

What's shocking is that, when I say history, I'm not only referring to things that happened 600 or 100 or 50 years ago. This history is happening *now*. It's just hard to see the pattern unless you look at the past and the present together. California Judge LaDoris Cordell presents one of the most succinct accounts of this history.¹ As you listen to her lecture, take special note of the stories she tells that relate to the built environment—to housing and housing financing, to planning and transportation.

This history is happening now. It's just hard to see the pattern unless you look at the past and the present together.

When I teach the Design Equity class, we watch a video that dives deeper into the planning of housing in cities and suburbs and the racial wealth gap that resulted.² Then we compile the dates from the readings and video into a large timeline so we can take it in at once. It's an awful moment, seeing it up on the wall. Awful if you are someone whose family experienced it, awful if you are experiencing more of the same today. And awful if you thought we were living in a post-racial world and had moved on since slavery and the civil rights movement.

But it can also be a moment when big chunks of our own personal racism—our unconscious belief that maybe some people are better than others just because of the color of their skin—can drop away. Those Black neighborhoods you sometimes drive by aren't falling apart because people don't care, they're falling apart because for years banks wouldn't give people loans to fix up their properties. Meanwhile, the houses in suburban white neighborhoods seem to have stood the test of time—but that's because the same banks gave cheap loans to white families.

Do environmental designers know this history?

Do environmental designers know this history? I would argue that planners know this history better than designers. Most planning programs are tied to a social sciences program, and planning

history is more likely than design history to be taught from a social/political perspective. Most designers, in contrast, learn history from an art-history approach, one aimed at giving us a vocabulary of Western European styles and forms like Classical, Baroque, Beaux Arts, Modern, and Post-modern, and with a focus more on how things look than on how they impact people's lives. This is slowly changing, but not fast enough.

1. See "Risky Business: Confronting Racism in America" at http://www.mprnews.org/story/2015/10/30/mpr_news_presents
2. See "How the Racial Wealth Gap Was Created" at <https://vimeo.com/133506632>

The resources listed below will help us see the city and all its parts in a different way—as the physical embodiment of values that continue to shape how people live and what they can and cannot do. As visual cues to what is considered important and what is not, who is considered important and who is not, where power is and where it isn't.

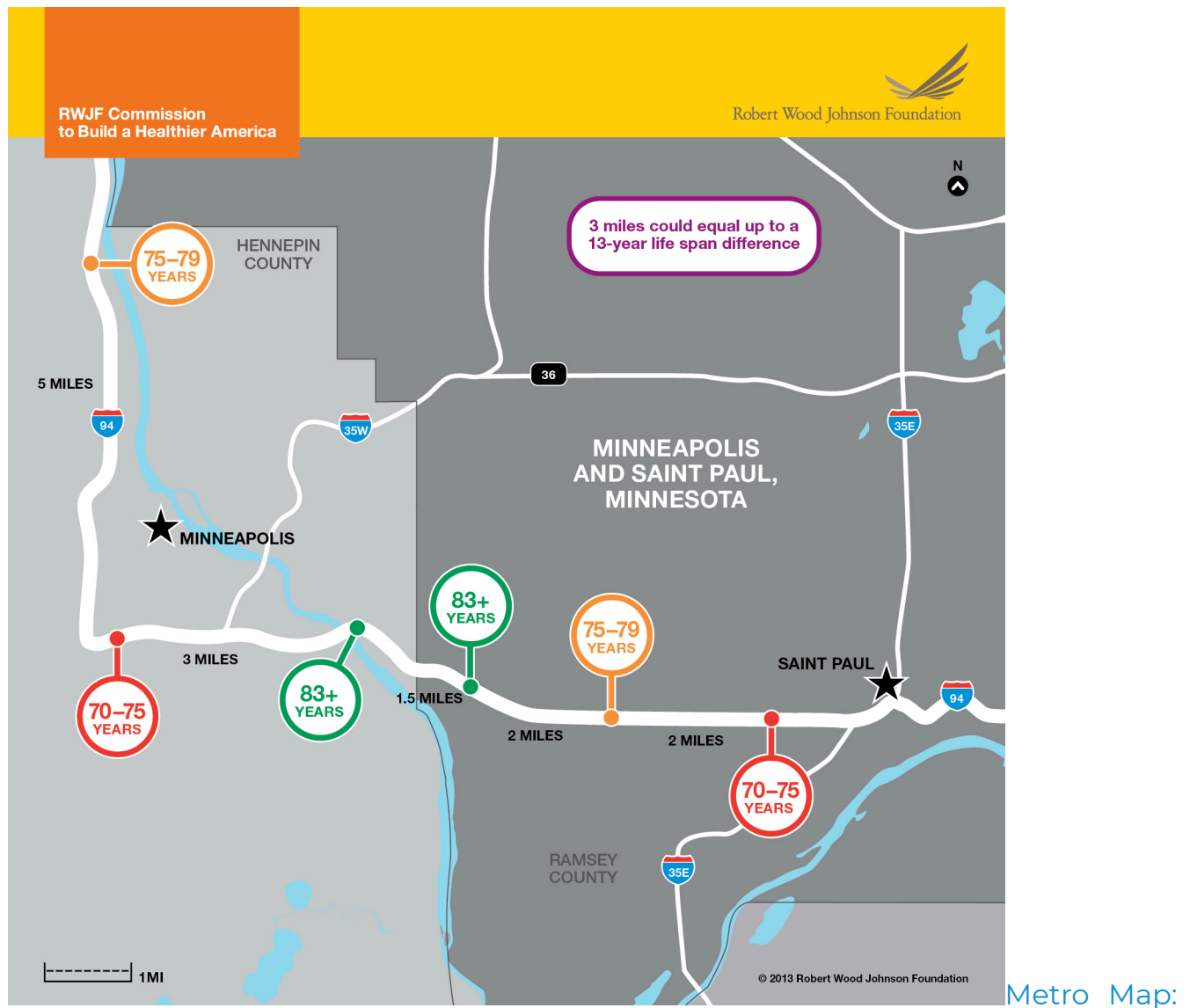
In the following chapters we will look at how people are trying to address these injustices from within different fields, like health, transportation, information, and housing. Each of these fields of equity research and practice takes on overlapping pieces of a complex puzzle. We will focus here on health, transportation, and information, mapping some of the ways in which each of these fields relates to what we have learned so far about equity and the built environment.

Additional Resources:

- Sociologist and Dean of Pitzer College, Dr. Melvin Oliver explains the relationships among wealth, housing, and race. Oliver, M. (2003). Race and Wealth – Available at https://www.pbs.org/race/000_About/002_04-background-03-05.htm
- Hayden, D. (2001, March). Revisiting the Sitcom Suburbs. Landlines. Available at <http://www.lincolnst.edu/publications/articles/revisiting-sitcom-suburbs> Professor Dolores Hayden describes the political roots of the post-war suburban housing boom. Also see Hayden's 2002 book: *Redesigning the American dream: the future of housing, work, and family life*. New York: W.W. Norton.

Endnotes

Chapter 4 - Health Equity and the Built Environment



Minneapolis and St. Paul, MN Infographic by RWJF on RWJF.org

We will begin our exploration of the different equity fields with health equity. Health and health equity, as you will learn, encompass issues well beyond whether someone has fair access to medical care. We will learn that where you live has a major impact on how healthy you are and can be.

What is health? When we think of a healthy person we tend to focus on whether or

not they are ill, what they eat, and their physical fitness. But human health refers to a much broader set of issues. Health can be described as:

...more than just the presence or absence of disease. It includes the overall well-being of an individual, the ability of an individual to fully participate in the social interactions of a community, and a lack of barriers to good health across a life span. (Lopez, 2012, p. 12)

Based on this description, what factors would you need to consider to call someone healthy? What does “overall well-being” mean to you? What allows someone to fully participate in the “social interactions of a community”?

As I write this I’m thinking about my 83-year-old mom as an example of a healthy person. If you met her you might be surprised (and I’m sure she would be very surprised that I chose her). She’s never been what you would call athletic and has some arthritis in her back, but she’s also almost impossibly positive about the world. She engages strangers in conversation wherever she goes. She wants to live as long as she can to see how the lives of each of her six children and 13 grandchildren and two great-grandchildren play out. She tries to eat well, goes to “gentle yoga” twice a week, and gets together with old friends. She goes to see her doctor regularly. She still drives to where she needs to go; she lives out in the suburbs so nothing is within easy walking distance. She’s lived in the same town for more than 45 years and knows lots of people close by. The ones she doesn’t know probably had my dad as a middle school teacher. So even beyond her friends and my sister and her family, who are just a few miles away, she has a really good network of people to support her. She doesn’t have to worry about the bills, she has a retirement savings, all of her kids are self-sufficient, and she doesn’t have to take care of any ailing family members.

Even if you didn’t know all of those things about my mom, you could have predicted that she is a healthy person by her zip code.¹ People are often surprised to hear that someone’s zip code is a stronger predictor of health in the U.S. than their genetic code. But as we have learned, where someone lives tells us a lot about their income level and social status. If my mom had continued living in the zip code in which she was raised, and at the same income levels as her parents, her health may not have been as good as it is today. But after my dad served in the

People are often surprised to hear that someone’s zip code is a stronger predictor of health in the U.S. than their genetic code.

1. See “Zip code better predictor of health than genetic code” at <https://www.hsph.harvard.edu/news/features/zip-code-better-predictor-of-health-than-genetic-code/>

Korean War my parents were able to use the GI Bill for my dad to attend college. My mom's tuition was affordable (back when public universities were affordable), and they used an FHA loan to buy their first house together. Their incomes were thus higher than those of their parents, and as a result they had better access to healthcare and other things you need to stay healthy—including a safe home and neighborhood.

As we have learned from our readings on racial equity and post-WWII housing policy, people like my parents were lucky to be able to take advantage of federally subsidized low-interest loans and were not prevented from buying houses in suburban neighborhoods where homes steadily increased in value. Black families of the same generation, however, faced institutional and personal racism that prevented them from doing the same.

Our home was our financial safety net. If push came to shove, my parents could borrow against its steadily increasing value. I know there were times when they buckled down on household expenses, especially when my mom went to graduate school, but I don't remember the lights going out or not having food in the fridge. I know my dad would have liked to change jobs after too many years as a middle school shop teacher, but he was better off than his friends who lost their jobs as factories closed down in the 1970s and 1980s and unemployment skyrocketed in our region. His job security was another federal benefit from the GI Bill.

Mental health is tied to physical health and both are tied to income.

That feeling of relative security—or the absence of major stress related to finances—is another important connection between our health and where and how we live. Mental health is tied to physical health, and both are tied

to income. If you are worried about paying the rent, feeding your family, or the safety of your neighborhood, your stress level increases. Stress is tied to obesity, high blood pressure, and other chronic illnesses. As stress goes up, immunities go down, and you are more likely to get sick. If your job has no sick days you may get fired if you miss work, and unemployment leads to more stress and poorer health. Stress also has prenatal impacts. High levels of the stress hormone cortisol during pregnancy can affect fetal neurological development.² While my siblings and I

2. See “Acute stress in utero has negative effects later in life among poor children, Stanford sociologist finds” at <https://news.stanford.edu/press-releases/2018/08/14/inequalities-prenatal-stress/>

started with a big leg up because of our parents' financial stability, some people start at a disadvantage even before they are born.³

This is the health-equity double whammy: if you have the resources to stay healthy—physically and psychologically—you are better able to advocate for yourself and make sure that you can stay healthy. If your landlord refuses to get rid of the asthma-triggering roaches, you can move. If you don't connect well with your healthcare provider, you can get a second opinion or call a relative or friend who is in healthcare for some advice. But if you don't have these resources, you will probably become less healthy over time. Your declining health will lead to declining opportunities to earn money. You may end up with even fewer resources, and in an even worse situation.

The Social Determinants of Health

As you will read in the Additional Resources section below, the social determinants of health include the conditions in which we live our lives, both physical and social: our economic stability, education, health and healthcare, neighborhood and built environment, and social and community contexts.⁴ Only about 25% of our health is determined by genes, biology, and health behaviors. The other 75% relates to social determinants. Of those determinants, more than 40% of our health is determined by our physical environment. Some of the ways in which where we live impacts our health are highly visible: smog-covered cities, unsafe traffic crossings, a lack of parks for recreation and exercise, a lack of nearby health clinics or grocery stores, insect-infested apartments. Others are not as visible, like a lack of living-wage jobs, educational opportunities, social networks, and political power.

In other words, the place where you live is an indicator of your income level and social status, which are both key social determinants of health. And the place where you live—whether it has access to transit, parks, good schools, safe pedestrian environments, grocery stores, etc.—impacts your ability to be and stay healthy. The house where my mom grew up in Buffalo, NY became a vacant lot which sold in 2003 for \$1.00.

3. See Braveman, P. & Gruskin, S. (2003). Defining equity in health. *Journal of Epidemiology and Community Health*, 57(4), 254. At <https://jech.bmj.com/content/57/4/254.full.pdf>

4. See Centers for Disease Control and Prevention Social Determinants of Health Frequently Asked Questions at <https://www.cdc.gov/nchhstp/socialdeterminants/faq.html>

Environmental Design as a Prescription for Health

Over the past 20 years, environmental designers and health researchers have argued that a way of bridging the health gap, especially for chronic disease, is to focus on the built environment. They contend that if we had better sidewalks and more bike lanes and parks, people would exercise more. If grocery stores selling healthful foods were in every neighborhood, people would have better nutrition.

But recent evaluations of such measures are leading health researchers to believe that physical changes to neighborhoods, though important, are not enough. The same patterns of institutional and personal racism that tie people to low or middle-class housing and neighborhoods also impact their freedom to take advantage of possibilities that might improve their physical and mental health. Adding sidewalks, grocery stores, and parks to low-income neighborhoods, for example, may do little to change people's health outcomes. These studies argue that we must also consider the interrelated issues of a person's life choices (their agency) and life chances (the underlying social and economic structures within which each person lives). Going for a walk to get some exercise, buying and preparing healthful foods, relaxing in the park with family and friends after a stressful work week, are all life choices that help us stay healthy. But whether or not we can make the "right" choices depends on the structural issues of how much time, money, and status we have: our life chances.

Thus structure and agency interact, with agency playing a role in choosing courses of action among available options that are structured by resources, norms, and class circumstances (Blacksher Lovasi, 2012, p. 173).

"Structural" issues, like income, can severely limit someone's ability to buy healthy foods, feel safe enough in their neighborhood to take a walk, and take time off work to see friends.

This is not to say that the built environment doesn't matter to a person's health. Rather, environment must be considered alongside agency and structure. Health can't be environmentally determined; physical changes alone to a neighborhood won't make the neighborhood's residents healthier. That said, in the case of health issues related to pollution, physical changes can protect people's health. People living in Flint, Michigan would not have lead poisoning if their water supply was safe. People would be less likely to be hit by cars if intersections prioritized pedestrian rather than vehicular movement. There are many opportunities to make broad changes and small improvements that would have a big impact on these kinds of environmental quality and safety-related issues.

Creating and maintaining safe and affordable housing and preventing displacement is a key component of any health equity approach.

Other recent studies have pointed to a Catch-22 related to health equity and improvements in the built environment. Improving sidewalks, parks, and intersections, and adding bike lanes and grocery stores, can increase the value of adjacent properties. Home owners benefit from these improvements. But people who do not own their homes may face rent increases, especially as

property taxes increase for their landlords. They may have to move, which destabilizes their social networks, brings on more stress, and may require a change in schools for kids and a longer commute to work. Consider what happens when a toxic waste site is cleaned up and turned into a park. This often leads to an increase in rents in the neighborhood, so that the people who had to live so long with these dangers of toxic waste don't end up reaping the benefits of the safe, new amenities. Creating and maintaining safe and affordable housing and preventing displacement is a key component of any health equity approach.

Since health is such a robust equity measure, touching all aspects of people's daily lives and the places where they live, it can seem almost impossible to imagine the kinds of changes that are needed to create health equity. How can we ensure that people have the agency to improve their health, and healthy environments in which to live? Some of the answers to these questions may lie in other equity fields, like housing, transportation and information equity. Other answers have yet to be identified or explored.

In "Reducing Health Disparities Through a Focus on Communities" (PolicyLink, 2002), the authors provide an overview of the social determinants of health and offer example strategies for addressing health disparities. As you read about these strategies, pay attention to the following questions: who might need to be involved in implementing them? What range of professional and community expertise is required? What barriers might arise? What is the relationship between changes to policies and changes to the built environments? What strategies might relate to the stories you heard in the "Unnatural Causes" video clips? Were there any issues raised in the videos that were not discussed in the report? In the next two chapters, we will read about transportation and information equity. Based on what you know about health equity, how would fair and just access to transportation and information help someone lead a healthier life?

By this point I imagine that your understanding of health has shifted. And because health is such an all-encompassing category, your view of

As massive and intractable as the problems seem, there

the world may have shifted as well. You may also feel overwhelmed by the scale and complexity of the problem of health inequities. Take some time to reflect on who you are, and the skills and unique


are many ways to contribute.

experiences you could use to contribute to ongoing work on health equity. As massive and intractable as the problems seem, there are many ways to contribute. You may already be volunteering at a community garden or food-shelf, or reading to elderly people in a nursing home. All of these small efforts matter. Now that you have read about bigger scale efforts like those set out in the PolicyLink report and in the “Healthy Lives for All” report, where do you see your skills and experiences as being of value?

Additional Resources:

- The “Reducing Health Disparities Through a Focus on Communities Report” from PolicyLink summarizes the social determinants of health and offers strategies for addressing health disparities in communities. Available at http://www.policylink.org/sites/default/files/REDUCINGHEALTHDISPARITIES_FINAL.PDF
- Dr. Renaisa Anthony, Deputy Director (CRHD) at the University of Nebraska Medical Center discusses the impact of race, gender, and background on health outcomes. Available at <https://www.youtube.com/watch?v=ywQJGnzQKGs>
- The clips from, “Unnatural Causes,” a film about health equity issues will add depth to our understanding of the different health issues facing different communities. Available at <https://www.youtube.com/playlist?list=PLEF0280B25D0841C4>
- In the TEDxFargo talk by Dr. Donald Warne, you will learn about the health equity issues facing his community. How does Dr. Warne encourage us to define health? How does his definition of health relate to your own world view on health? What kinds of solutions might arise if health equity were addressed through this worldview? Available at <https://www.youtube.com/watch?v=3phTundagzQ>

Works Cited

Blacksher, E. & Lovasi, G. S. (2012). Place-focused physical activity research, human agency, and social justice in public health: Taking agency seriously in studies of the built environment. *Health & Place*, 18(2), 172–179. <http://login.ezproxy.lib.umn.edu/login?url=https://doi.org/10.1016/j.healthplace.2011.08.019> 

Lopez, R. (2012). *The built environment and public health*. San Francisco, CA: John Wiley & Sons.

PolicyLink. (2002, November). *Reducing health disparities through a focus on communities report*. Available at http://www.policylink.org/sites/default/files/REDUCINGHEALTHDISPARITIES_FINAL.PDF

Endnotes

Chapter 5 - Transportation Equity



*Twin Cities residents advocating for equitable transit.
Thai Phan-Quang, photographer.*

An equitable transportation system is one that provides affordable transportation, creates quality jobs, promotes safe and inclusive communities, and focuses on results that benefit all. It also strengthens the economy by ensuring that all people—regardless of race, income, or ability—can connect to the education and work opportunities they need to participate in and contribute to society and the economy. (PolicyLink, 2016, p. 2)

In the previous section we learned that health equity is central to living the life you want to live and to building and maintaining our social networks. Equally important is the ability to move through

Transportation is so important that, after

space. As much as the internet has made it possible to do just about anything without leaving the couch, we still have to haul our bodies from place to place to live full and healthy lives. How do you go to work, the health clinic, the

grocery store, to see your family, and back home again? How far apart are these resources from one another? Are they well connected by transit or do you need to drive? Once you park your car or get off your bus are there safe ways to get to your destination as a pedestrian? How much do you pay for public transportation or auto-related expenses? Transportation is so important that, after housing, it is the second highest expenditure for U.S. families.

housing, it is the second highest expenditure for U.S. families.

My first internship after college was at a non-profit environmental organization about 20 miles from where I lived with my parents. The office was located at the suburban Amherst Campus of the State University of New York (SUNY) Buffalo, a campus built in the 1960s when lots of institutions were leaving the city along the routes created by new government funded highway systems. The internship wasn't paid, but the experience led directly to my first real full-time job. Using public transportation, the commute would have taken at least two hours each way. With my parents' car and two different highways, however, I was able to get there in about 30 minutes and park for free.

Transportation equity is directly tied to land-use planning decisions. Locating the new SUNY Buffalo Campus in the suburbs rather than the city led to a cascade of transportation and development impacts. Millions of dollars in transportation infrastructure connected the campus to the region. Student and faculty housing was created on and around the suburban campus instead of in the city. Money was spent on new buses to get students from the city campus to the suburban campus—money that could have been spent elsewhere. For those not living on campus, walking and biking to school became next to impossible.

Transportation connects people to opportunities and resources.

Transportation connects people to opportunities and resources. Your transportation options depend on how much money you have and where you live, and as we learned in the history section, these have a lot to do with the

color of your skin. The same policies and decisions that built U.S. cities and metropolitan regions around cars also set up the conditions for today's transportation disparities. When we read about the history of American cities and suburbs we learned that white families were able to use FHA loans to buy affordable homes in newly developed suburbs, while Black and Native American families were denied the use of these loans. Black families were forced to remain in

the city where rents were higher than suburban mortgages. Native American families were not able to use FHA loans to build homes on reservations, and were thus unable to build wealth through homeownership.¹ This left most Black and Native American families in the city or on the reservations with few financial resources. White families in the suburbs were able to build wealth through homeownership and had enough resources for at least one car.² As the tax base shifted from cities to suburbs, available urban resources declined. Even if kids in urban areas could walk to school, their walk might not be as safe and that school would have a lower budget than a suburban school that was accessible by foot.

Along with the FHA loans, the Federal Highway Act of 1956 was central to the shift from city to suburbs. This policy transformed billions of taxpayer dollars (combined with state allocations and user fees) into high-speed connections between new suburban housing developments and urban job centers. Starting in the 1960s and continuing today, companies also moved their headquarters from the city to the suburbs (where most of their executives lived), shifting thousands of jobs with them.

Who benefitted from highway spending? Suburban real estate developers and financiers, construction companies, and suburban homeowners. Who lost? People living in the neighborhoods like Rondo in St. Paul, Minnesota, where 600 homes were demolished to make way for Interstate Highway 94. Those who remain live with the noise and air pollution, and cannot walk through their neighborhood without going out of their way to find a pedestrian crossing. Just like health inequality is not just about access to

...transportation inequality is not just about accessing transit. It's also about who does or who does not benefit from transportation projects...

1. See "All-in-Nation: An America that works for all" at <https://cdn.americanprogress.org/wp-content/uploads/2013/07/AllInNation.pdf>
2. My family benefited from the GI Bill. After my dad served in the Korean War he received a free education that allowed him to shift from his job in the steel mill to teaching. The jobs paid about the same, but when the steel mills in Buffalo, NY, laid off 60,000 people in the 1970s and 1980s, the shift in jobs made possible through the GI Bill meant our family remained financially stable. Other families never recovered. At that time many Black veterans did not have the same opportunities to use GI Bill funds. See Katznelson, I. (2005). *When affirmative action was white: An untold history of racial inequality in twentieth-century America*. New York: W.W. Norton & Company - Portions of the book are available at <https://tinyurl.com/y83gek19>

healthcare, transportation inequality is not just about access to transit. It's also about who does or who does not benefit from transportation projects (in terms of economic, social, educational, and health outcomes, for example), who does or does not bear the burden of increased public transportation costs, and who does or does not have a say in transportation decisions.

Let's start by looking at who does and who does not have good access to transportation options. People who cannot afford a car (or gas), who are too young or old to drive, or whose physical disabilities prevent them from driving all depend on public transportation to meet their daily needs. Changes in routes or schedules impact transit-dependent people more than those who have access to a car. If your commute goes from half an hour to two hours because of a change in bus routes, you have less time with your family, higher child care costs, and less time to go to school or work. If you are late to work because the bus schedule is inconsistent, you may lose your job. If you are only able to apply for positions on or near a transit route you may miss out on better opportunities in suburban office parks, or be unable to work nights or weekends when bus service is typically limited.

The poorest families in the U.S. spend nearly 40% of their budget on transportation...

Who bears the burden of transportation costs? Since everyone pays the same amount to use public transportation, buy a gallon of gas, and pay tolls, income level dictates the percentage transportation takes of one's overall budget. The poorest families in the U.S.

spend nearly 40% of their budget on transportation, while middle-income families spend about 19%³ That leaves middle-income families with an extra 21% of their budget to spend on other things like education, healthcare, and entertainment. Current government transportation budgeting, however, favors wealthier riders and drivers. Spending on car-centered infrastructure, suburban buses, and commuter rail well outweighs spending on city buses.

Motorists have been the primary beneficiaries of federal and state transportation investment. A total of 80% of federal transportation dollars goes toward highways, while all other modes of travel compete for the remaining 20% (Rubin, 2009, p. 22).

It's ironic that low-income people, who spend the largest portion of their incomes on transportation, disproportionately subsidize wealthier public transit riders.

3. See Wellman, G. C. (2014). Transportation apartheid: The role of transportation policy in societal inequality. *Public Works Management & Policy*, 19(4), 334–339. At

<http://login.ezproxy.lib.umn.edu/login?url=https://doi.org/10.1177/1087724X14545808> 

Transportation equity researcher Robert Bullard puts it this way: a “‘reverse Robin Hood’ policy operates in many transit systems where the meager resources of poor, transit-dependent riders are used to subsidize affluent transit riders” (Bullard, 2003, p. 1197). These subsidies are often justified as ways to reduce the number of suburban car commuters.

Transportation equity is about the fair distribution of the positive and negative impacts of transportation projects and policies. Transportation construction projects are typically big and costly, involving lots of land and money. Think

...transportation equity is closely tied to health and environmental equity.

about the amount of space and capital needed to construct or repair a highway. Even smaller-scale projects that make it easier for cars to move through cities frequently make it harder and more dangerous for pedestrians, cyclists, and transit users to get around. From this perspective, transportation equity is closely tied to health and environmental equity. Expenditures that favor car transport over public transportation result in higher emissions and poorer air quality. Low-income neighborhoods are more likely to be located near major roadways, and these residents suffer disproportionately from air pollution burdens such as increased asthma. Unsafe pedestrian crossings and a lack of safe bike routes can lead to collisions with vehicles. Low-income people are twice as likely to be killed while walking than higher-income people. African Americans and Latinos are two times as likely to be killed while walking than Whites.⁴ Those who rely on public transportation may not have easy access to grocery stores and may have to shop at convenience stores with fewer healthy food options.

Transportation equity is also about who is able to participate in decisions about service and infrastructure. What recourse do you have if your bus line is slated for reduced service? What if there are no benches or safe crossings near your stop? Who do you call if the air quality is so bad that your elderly neighbors have trouble being outside in the summer? What if a new highway is slated to run through the middle of your neighborhood? What if a new rail line is proposed through your neighborhood but won't be stopping there? How do you know that your input was taken into account? How can you find out who else cares about these issues? Do you have any legal recourse? A study of Metropolitan Planning Organizations, the groups with the most say in how billions of transportation dollars are spent in many U.S. regions, showed a disproportionately high number

4. See Zimmerman, S., Lieberman, M., Kramer, K., & Sadler, B. (2015). At the intersection of active transportation and equity. At https://www.apha.org/~media/files/pdf/topics/environment/srts_activetranspequity_report_2015.ashx

of white suburban committee representatives. Furthermore, representatives are appointed, rather than directly elected by the people their decisions impact.

The siting of the SUNY Buffalo Amherst Campus, the location of my first internship, was highly controversial. A broad and diverse coalition of members of campus and community groups and both local newspapers argued for a site near Buffalo's downtown, which was already feeling the economic impacts of suburbanization. A city location would have been much easier for people without cars to access, and closer to low-income neighborhoods. Nevertheless, the suburban location won out and campus construction began in 1968. The impacts of this decision—the shift of millions of dollars of resources and increased spending on new vehicle access routes, including expanded expressways to and from campus—are still felt today.

What neighborhoods are getting these amenities? Who benefits?

Many public universities in the U.S. that developed suburban campuses in the late 1960s and early 1970s have recently relocated portions of their campuses back downtown. SUNY Buffalo, for example, recently built a new medical

school complex downtown. In response to lessons learned from uniformly car-centric decades, urban designers, city planners, and real estate developers have focused new energy and ideas on making walkable, bikeable, transit-rich urban neighborhoods. In cities like Minneapolis and St. Paul, though, we still spend much more on car infrastructure, and plans for city bike systems that connect to buses and light rail are high priorities for city officials. Who these efforts are for, however, remains an important question. Which neighborhoods are getting these amenities? Who benefits?

Two moments in the history of the Rondo neighborhood of St. Paul, Minnesota, illustrate the importance of understanding how major transportation projects impact low-income neighborhoods: the construction of Highway I-94 and the construction of the Green Line Light Rail Transit (LRT). The I-94 story has no silver lining, and its effects continue to burden Rondo residents while benefiting car users. The LRT story, in contrast, illustrates the power of coordinated community action to shift public policy towards equity.

St. Paul's mainly African American Rondo neighborhood had a thriving economy and strong cultural community in the decades before and after World War II. But in the late 1950s, as part of the Federal Highway Program, plans were made for a connection between the two downtowns of Minneapolis and St. Paul and out to the eastern and western suburbs. Rather than an alignment within an existing railroad right of way to the north along the industrial corridor of Pierce Butler Drive, transportation planners chose one cutting through the middle of Rondo, a choice which ultimately destroyed hundreds of homes and small businesses.

Rev. George Davis tried his best to stay in his home. When he refused to move, authorities forcibly removed him. Police arrived at the preacher's house bearing axes and sledgehammers, a sight that caused his 13-year-old grandson to cry. "They were knocking holes in the walls, breaking the windows, tearing up the plumbing..." recalled Nathaniel Khaliq, now 66, who is Davis' grandson. "I was crying because it looked like something bad happened" (Yuen, 2010).

The impacts of the I-94 location went beyond physical destruction. As the federal highway program and FHA loans pulled white Minnesotans away from the city, residents who remained in Rondo suffered the impacts of a diminished tax base, abandoned properties, and disinvestments in schools and other public programs. They were also left with the ongoing health impacts of air pollution from car emissions.

Today, former and current Rondo residents commemorate their neighborhood through Rondo Days, an annual parade and festival that draws thousands of participants, many of whom grew up in homes that were demolished for the freeway. [A new commemorative plaza](https://www.aia-mn.org/rondo-commemorative-plaza/) (https://www.aia-mn.org/rondo-commemorative-plaza/) on Concordia Avenue, a frontage road for I-94, interprets Rondo's history and the history of how the federally funded highway system cut through many other Black neighborhoods across the U.S.

Forty years later, Rondo was at the center of another transportation equity controversy with national implications. Planning began in earnest in 2001 to connect the downtowns of Minneapolis and St. Paul with light rail transit along an eleven-mile stretch of University Avenue. The Green Line was the biggest piece of public infrastructure added to the neighborhoods since the construction of I-94.

No transit stops were planned in the most transit-dependent neighborhoods along University Avenue, including the bulk of Old Rondo. Stops for Us, a campaign led by a deeply diverse coalition including Rondo residents and leaders, won a victory for transportation equity that benefited thousands of residents and businesses and shifted federal transportation policy towards a more socially just model. As a result of their work three additional stops were constructed: on Victoria, Dale, and Western Avenues. Rondo residents, some whose parents and grandparents fought I-94, joined forces with residents of nearby Frogtown and transportation equity advocates to win the stops, and to win support for small business owners who faced traffic disruptions and loss of parking during and after construction.

Stops for Us allies rightly framed the uneven negative impacts of the implementation of the Green Line as an equity issue. Gaining the stops was a hard-won victory requiring multiple tactics: lobbying public officials, researching station locations and demographics, leveraging the National Environmental Policy Act process, drafting state legislation, monitoring public meetings, testifying at public hearings, and implementing a media strategy. The movement benefited from the

involvement of community leaders experienced in civil rights and social justice, and from the broad range of culturally specific organizations along the corridor. In 2010, the coalition won the Environmental Protection Agencies Environmental Justice Award,

....for its efforts to form a broad-based partnership to secure the construction of three new light rail transit stations, which will provide access for the transit dependent communities of East University Avenue, connecting residents to housing, jobs, education and the many amenities located throughout the Twin Cities metropolitan region. (US EPA, 2010)

I-94, however, remains a barrier and health hazard for Rondo residents. They still hope to find ways to remedy the destruction, and are advocating today for options including new pedestrian bridges and/or a highway “lid” that would cover I-94 with new green space. Examples of highway lids can be found as close as Duluth and as far away as Seattle. Rondo residents are also concerned that the Green Line is leading to increases in rent and tax assessments for long-time residents who may need to move out of the neighborhood.

As you will read in the next chapter, information equity, like health and transportation equity, is key to ensuring fair and just access to opportunities and resources for everyone.

Works Cited

Bullard, R. D. (2003). Just sustainabilities. Retrieved from https://books-google-com.ezp1.lib.umn.edu/books/about/Just_Sustainabilities.html?id=I7QBbofQGu4C

PolicyLink. (2016). Transportation for all: Good for families, communities, and the economy. Retrieved from <http://www.policylink.org/sites/default/files/Transportation-for-All-FINAL-05-10-16.pdf>

Rubin, V. (2009). All aboard! Making equity and inclusion central to federal transportation policy. Retrieved September 6, 2016, from <http://www.policylink.org/find-resources/library/all-aboard-making-equity-and-inclusion-central-to-federal-transportation-policy>

US EPA, O. (2010). Environmental Justice Awards 2010 [Announcements Schedules]. Retrieved August 11, 2015, from <http://www.epa.gov/compliance/environmentaljustice/index.html>

Wellman, G. C. (2014). Transportation apartheid: The role of transportation policy in societal inequality. *Public Works Management & Policy*, 19(4), 334–339. <https://doi.org/10.1177/1087724X14545808>

Yuen, L. (2010). Central Corridor: In the shadow of Rondo. Retrieved November 11, 2018, from <https://www.thecurrent.org/feature/2010/04/20/centcorridor3-rondo>

Endnotes

Chapter 6 - Information Equity



*St. Paul residents planning for renovation of the Victoria Theater.
Thai Phan-Quang, photographer.*

Think of all of the points in your day today when information has mattered—from the simplest kinds to the most complex. To get to work or school today you had to know what time it was, how to get there by bus or car or foot, what the weather was going to be like, if there was traffic. To register for classes, you needed to know what classes were being offered and at what times, what prerequisites you might need, where and when the classes would be held, and if the professor was any good. Access to accurate, useful information is central to everything we do. Thanks in part to the internet and smartphones, accessing information has become so simple that it is easy to forget its significance.

Information is foundational to all kinds of equity. Take health equity as an example. What information do people need to live a healthy life? To secure health insurance for their family? To help a loved one who is sick? To deal with a chronic illness? How can people know the information is accurate? What if your health insurance company no longer covered an important medication you or someone in your family relied on? Who would you call?

Information is foundational to all kinds of equity.

Beyond individual interests, our entire democracy depends on an active and informed public that has the information needed to participate:

Democratic political systems...make claims to legitimacy partly on the basis of their citizens' ability to seek and obtain reliable, credible information about issues that affect them, information that allows them to interact with other citizens and with their governing institutions....no social arrangements, indeed, no culture or society, can exist without information....a primary requirement for a "good society" is equitable information access and use." (Lievrouw and Farb, 2003, pp. 504–505)

In other words, if people in a society do not have access to information they need to advocate for their interests, that society is not really a democracy.

Let's use another health equity example to discuss the relationships between information, democracy, and equity. What if someone in your family developed asthma because of the bugs or old carpeting in your apartment? What is your landlord required to do? Most cities have laws that spell out your rights as a tenant and the responsibilities of your landlord. But as a renter, you need to know these laws exist and know where you can get a copy. You might also need help understanding legal jargon or translating the document into your first language. There are non-profit organizations that may be of help, but again, you would need to find them. There may even be agencies at other levels of government, like a county office of health that might help, but where would you begin your search?

...it's not just the information about the particular issue that is important. People also need information about how democratic processes work.

As Lievrouw and Farb state, it's not just the information about the particular issue that is important. People also need information about how democratic processes work. Let's say you worked through the process on your own behalf and wanted to advocate for clearer laws so that other people wouldn't have to deal with what you went through. You have a lot of information about why it is

important based on your personal experience, but would you know what government agency or body has the authority to create programs for tenants' rights? Would you know how their decisions get made? Are they elected officials or appointed? Do they have public meetings? You would also need information to find other people or organizations who shared your goals so you could organize.

If you have ever looked at a city website you have probably noticed that there are meetings scheduled just about every day of the week in which decisions are discussed and made about issues ranging from housing to education to transportation to social services. What information would you need to actively participate in those meetings? Depending on the meeting, you may need to know about zoning, traffic safety, historic preservation, or parks funding. You would also need to know about the processes those meetings follow. When are you allowed to speak and what recourse do you have if the decision goes the other way? You also need to feel comfortable speaking up. Who do you think is comfortable speaking up in a public meeting? Who do you think people in power might be more inclined to listen to or agree with? Who might not feel comfortable going to a public meeting at all?

Government agencies and officials are not the only bodies that make decisions that impact people's ability to live the lives they want to live. Private corporations may be accountable for decisions that impact access opportunities and resources. What companies make decisions that impact your health care or credit score? Why are there fewer grocery stores in your neighborhood? What kind of internet or cell phone services can you choose from?

To unpack and understand all of the issues at play in information equity, let's start with two big categories: agency and social capital. Each describes a different—but often related—way that having or not having fair access to information can change someone's life.

First, let's think broadly. Information is central to what people call *personal agency*—whether or not you are able to live the life you envision for yourself. Where do you want to be in five, 10, 20 years? Are you considering graduate school, travel, starting a career, having a family, owning a home? Now think about all of the kinds of information you will need to pursue each goal. Where would you find that information? How would you know it was up to date? Is it all available on the internet and do you have reliable access? Would you “phone a friend” for advice?

Information is central to what people call *personal agency* – whether you are able to live the life you envision for yourself.

The phone-a-friend example brings us to another key element of information equity called *social capital*. Social capital is the benefit people derive from having

relationships with others. If financial capital is about how much money you have to spend, social capital is about what kinds of personal relationships you are able to tap to your benefit.¹ Information is key to building social capital and is a key benefit of having social capital—to finding and meeting and interacting with people who will benefit you and offering them advice and support in return. Information is also a key benefit of having social capital. Your social network is an information resource—and the social networks of people in your network are also valuable. Has a relative ever made a call to a friend for you about a job? Do you know someone who is a nurse or doctor who gave you medical advice? Do you have an older sibling or friend who taught you to drive?

Our personal agency is impacted by government policies and corporate actions.

Our personal agency is impacted by government policies and corporate actions. Information is key to understanding these impacts and advocating for our interests. What if a new bill were introduced that drastically cut access to student loans or that

offered loans only for certain majors? Where would you get information on the bill? How would you find other like-minded people to start a petition? What if banks lobbied to raise interest rates on loans? How would you know that was happening and where and how to stop it?

In addition to making decisions that impact our personal agency, corporations may collect information about us without our knowledge and use that information to shape our decisions and choices. At the most benign level, internet search engines remember what products we have looked at and put them up in sidebars to entice us to go back and buy them. In a now famous story, Target used a teenager's internet search history to determine that she was pregnant. Her father got his first hint when a Target catalog of baby products came to the house addressed to his daughter. Aware of how disturbed consumers were by these targeted ads, Target dropped its strategy of including a selection of targeted products in an otherwise general-seeming catalog (Hill, 2012). Other companies use similar information to decide which products they do and do not want to sell you. The term “Weblining” describes the practice of denying people opportunities based on their digital selves. Your “digital e-score” can determine the prices and services you are offered:

1. The two are also related. Depending on the kind of social relationships you have, you may have a better chance of finding out about a job or an apartment or other opportunity. A *Forbes* article title sums it up this way, “Your Network Is Your Net Worth: 7 Ways To Build Social Capital. *Forbes* article available at <https://www.forbes.com/sites/bonniemarcus/2014/10/20/your-network-is-your-net-worth-7-ways-to-build-social-capital/#251eca6af7>”

FTC Data Broker Report: May 2014: “the scoring processes used in some marketing products are not transparent...consumers are unable to take actions that might mitigate the negative effects of lower scores, such as being limited to ads for subprime credit or receiving different levels of service from companies.” (Yu, Mierzwinski, Robinson, Yu, Llc, 2014, p. 30)

Your ability to access and control your financial information impacts every aspect of your life. You may be able to find information on an affordable apartment to rent, but if your credit rating is low because it includes incorrect information, you might not be able to make it through the landlord’s screening process.

These are just a few examples of how the category of information equity includes whether or not we have access to information and how our own personal information is used. But we still haven’t set out a definition of information equity. What is its goal? What does society look like when everyone has fair and just access to information?

Can we summarize information equity in this way—as having fair and just access to information? As the above examples show, yes and no. Access is fundamental to information equity. And we are far from the point where we have equal access, let alone fair and just access. “More affluent, better-educated,

**Can we summarize
information equity as
having fair and just access
to information? ...yes and
no.**

or higher-status individuals and groups are found to have access to more information sources, a wider range of media and content consumption choices, and more online access than other groups” (Lievrouw & Farb, 2003, p. 513). Let’s say that we were able to provide everyone with the same access to the same information in the same format. Would that solve the problem? Would everyone have personal agency, the ability to build and sustain social networks, and the opportunity to participate in democratic society? It depends on what the information is and whether or not everyone is able to understand and use it:

Information resources are valuable only insofar as they are meaningful or useful to the people who have access to them. The ability to derive a benefit from a resource depends to a great extent on people’s skills, experience, and other contextual factors....Consequently, the task for researchers is to assess the quality as well as the distribution of available resources, and whether and how well people use them. (Lievrouw & Farb, 2003, p. 514)

So it’s not just having access to the information that matters. The information itself must matter and be understandable to the people that need to use it, and people must understand the processes—governmental or private—through which they can advocate for their interests. If we think of environmental design as a set of

ongoing processes, we can track whether people have the information they need to have a voice in these decisions.

In order for people to participate in these processes, what information is important? First, people need to know that something is happening and what the opportunities are for them to give input. If you are a soccer fan you may have heard that the Minnesota Major League Soccer (MLS) is building a new stadium in the Midway neighborhood of St. Paul just south of the GreenLine light rail. But the first time many residents and business owners in the immediate neighborhood heard about it was after the decision to locate the stadium had happened and when planning was well underway.

Artist and community organizer Lula Saleh remembers when she first saw the drawings for the new building and the changes to the streets and sidewalks around it. “It was at a community meeting about something totally different and someone from St. Paul brought these big images of what the stadium was going to look like and people were shocked. It was the first time that they had heard anything about a stadium and here were these big pictures of the design.” A long-time Midway resident summed up his concerns this way:

My immediate response is simply this: I need a lot more information before I can endorse this plan....I need to know more about the potential impact regarding traffic and potential traffic congestion on the major streets that would be traveled by customers of the stadium, potential interference with emergency vehicles during stadium events, parking options for event customers, air pollution...noise volume and the impact of that noise on the neighborhoods within two miles of the stadium. We need more information. (Melo, 2016)

In order to get current information to concerned residents and business owners, and to connect them to decision makers, African Economic Development Solutions (AEDS), a local non-profit business organization, convened a meeting outside of the official public participation plan. They invited public officials and an official representing the MLS Stadium, and opened the meeting by sharing a report on the economic impact of African immigrants in Minnesota, establishing the importance and value of the voices of the people assembled. Participants asked lots of questions: Would the stadium lead to an increase in rents in the neighborhood? Would it impact parking for local businesses? What about the business owners who rented space in the shopping plaza that was set for demolition in the next five years? On their website, AEDS followed up by sharing dates of the next official meetings and articles written about the project.

But the question remains as to whether or not, even if people know about and participate in a meeting, their opinions matter in the final decisions.

This example illustrates the importance of investing development dollars in community engagement and information sharing. But the question remains as to whether, even if people know about and participate in a meeting, their opinions matter in the final decisions. But what if, instead of responding to a new development project or transportation plan for your

neighborhood, you wanted to do something yourself? What if you wanted to add on to your house or turn a vacant lot into a park? Get a light on your street fixed? Get a new pedestrian crossing or bus shelter? Who do you talk to? What are the permits? Who else might have the same interest?

One organization using design to improve information equity is the Center for Urban Pedagogy (CUP) in New York. Take a look at the project called Rent Regulation Rights (at <http://welcometocup.org/Projects/MakingPolicyPublic/RentRegulationRights>). What information equity issue were they trying to address? How might this project impact people's agency or social capital? With whom did they partner to make this project happen? CUP is unique in that it uses design processes and products, especially graphic design, to bridge the information gaps that prevent New Yorkers from being able to advocate for themselves around big equity issues like housing, transportation, and education. In the next two chapters we will look at design processes to figure out how they happen, who they benefit, and how design might be an important tool in creating more equitable systems and places.

Works Cited

Hill, K. (2012, February 16). How Target figured out a teen girl was pregnant before her father did. *Forbes*. Retrieved from <https://www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-pregnant-before-her-father-did/#4a094a8e6668>

Lievrouw, L. A., & Farb, S. E. (2003). Information and equity. (1), 499–540. <https://doi.org/10.1002/aris.1440370112>

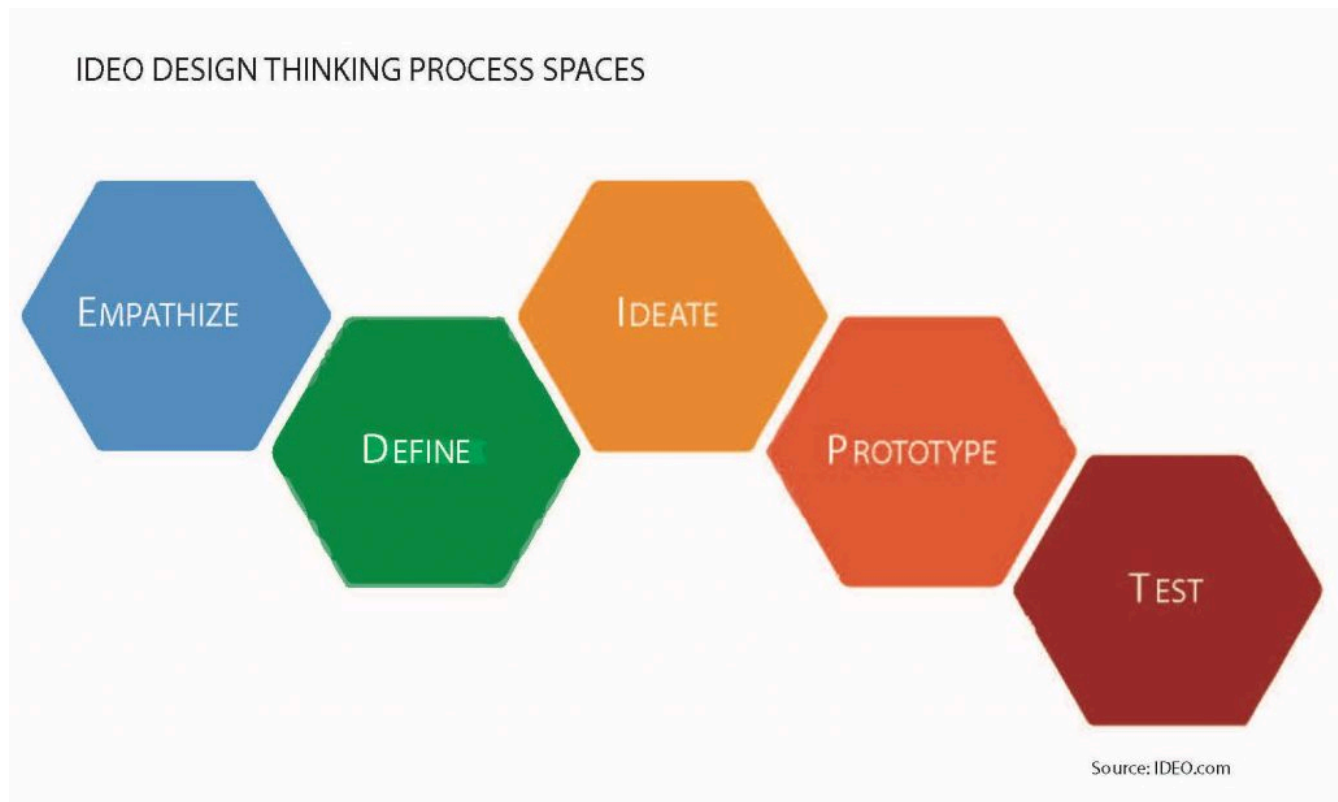
Melo, F. (2016, May 15). Minnesota United soccer stadium hopes varied in Midway. Retrieved from <https://www.twincities.com/2016/05/13/thoughts-on-minnesota-united-soccer-stadium-vary-in-midway/>

Yu, P., Mierzewski, E., Robinson, D., Yu, H., Llc, Y. (2014). Weblining and Other

Racial Justice Concerns in the Era of Big Data. Retrieved from http://www.nclc.org/images/pdf/conferences_and_webinars/webinar_trainings/presentations/2013-2014/weblining_and_other_rj_concerns_in_the_era_of_big_data.pdf

Endnote

Chapter 7 - What is Design Thinking and What does it have to do with Equity?



*Diagram of design thinking process based on IDEO model.
Ali Boese*

The word *design*, like the words *art*, *research*, and *writing*, seems so broad that it's hard to define. And just like anyone can paint a picture, conduct a survey, or write a story, anyone can design. You and your roommate may have come up with a way to arrange your furniture so that you had more privacy or a better study space. You may have created a poster to advertise a performance or club meeting, choosing just the right font and images to capture the spirit of the event. In either case you had a

The word *design*, like the words *art*, *research*, and *writing*, seems so broad that it's hard to define.

goal in mind, tried out several different solutions, and weighed each solution against a set of criteria before making a final decision. This is design. And while the designs that non-professional designers create could be linked back to larger equity issues (who has the final say, you or your roommate? Who decides what a private space or a study space should feel like? What is the performance about? Where is it held? Who is able to go? Whose interpretation of the “spirit of the event” is right?), our concern here is with the relationships between equity and the work of design professionals. Their decisions have the potential to impact the most people. And some design professionals, like landscape architects and interior designers, are licensed and legally required to serve the public good.

In the next two chapters, we will look at two related types of professional design practices: design thinking and discipline-specific design. *Design thinking* is the more generic practice, with specific processes that can be used by professionals or by anyone looking for a creative way to solve a problem or come up with a new idea. Fields of *discipline-specific design* include graphic design, interior design, landscape architecture, architecture, apparel design, experience design, systems design, and product design. Each discipline-specific design field has its own design processes (though they are similar) and draws on its own areas of expertise.

In this chapter we will look at the professional practice of design thinking—how it works and how it’s used.

In this chapter we will look at the professional practice of design thinking—how it works and how it’s used. Over the past 20 years new academic programs, centers, and entire companies have emerged that offer design thinking training and services to

corporations, organizations, and government agencies. [IDEO](#), an international design firm with over 700 employees, is the largest, with a portfolio of work that is deep and diverse. Los Angeles County, home to the country’s largest voting district, worked with IDEO to rethink its entire voting system. Help Glide, a software startup, worked with IDEO to develop a watch band that captures photos and videos for the Apple Watch. Design thinking services are also offered by non-profit design centers like the Minnesota Design Center at the University of Minnesota (MDC). The MDC, the Minnesota Department of Human Services, and the Future Services Institute used a [strategic design thinking process](#) to approach the many systemic barriers facing adults who live in corporate foster care facilities.

So how does design thinking work? Professionals use many different processes—some with three steps, some with five or more, some with three big steps that are then divided into smaller steps. Most use different words to describe roughly the same activities, making it difficult to compare, and, for our purposes, difficult to map the ways each design thinking process relates to equity. That said,

some design thinking processes are more established than others because they are taught to students at places like Stanford's Design School or MIT's Design Lab. Students from these programs have gone on to teach or to create big influential design firms and to promote similar design thinking processes. Later in this chapter we will dig into the design thinking process model developed by IDEO leaders Tim Brown and Jocelyn Wyatt and described in the *Stanford Social Innovation Review*.

Some clues to how design thinking works can be found in its history. As you will read in the article “Design thinking origin story plus some of the people who made it all happen,” by Jo Szczepanska,

Some clues to how design thinking works can be found in its history.

design thinking as a strategy for problem solving emerged in the late 1950s and early 1960s. Early design thinking approaches drew on methods of established and emerging professions as diverse as engineering, architecture, industrial design, psychology, and computer science. Initially developed as a way to tackle complex environmental and social issues, design thinking today has become a sort of “umbrella term” that refers to any multi-disciplinary, human-centered project involving research and rapid idea generation.¹ “Human-centered” means that the design team aims to find a solution that fits the needs of the end user, not just the company or organization that hired the designer to come up with a solution. The word “research” is used a bit loosely in design thinking to mean gathering information needed to generate and test out solutions and ideas and then critically evaluating that information in light of the project at hand (though some design thinking projects may include social science, ergonomic, or market studies that do generate new knowledge and contribute to larger bodies of research). “Rapid idea generation” (sometimes called “rapid ideation”) refers to the step in which a design team quickly generates lots of ideas, tests them, modifies them, and re-tests them until the team and its clients believe they have created a workable solution.

What happens after the design thinking is over? That depends on how much time, money, and willpower is needed and is in place to make something happen. A non-profit might use the results of a design thinking process to solicit support from funders. A for-profit company might bring the ideas to its research and development team. A city agency might put the ideas out for public input and to generate support.

1. See “Design thinking origin story plus some of the people who made it all happen” at <https://medium.com/@szczpanks/design-thinking-where-it-came-from-and-the-type-of-people-who-made-it-all-happen-dc3a05411e53>

When you compare the main design thinking process models and distill their basic components you will find that they can all be organized into some version of the same cycle of activities.

When you compare the main design thinking process models and distill their basic components you will find that they can all be organized into some version of the same cycle of activities. In “Design Thinking for Social Innovation,” Tim Brown and Jocelyn Wyatt outline what many see as the foundational process for design thinking. Brown is President and CEO of IDEO and Wyatt leads its Social Innovation group. Their process has been critiqued and adapted by

others to better fit social and racial equity goals, so we will spend some time here talking through their ideas. For Brown and Wyatt (and in all of the design thinking models), design thinking is not a linear path. Instead, it is iterative, looping among three big activities that they label as inspiration, ideation, and implementation:

Think of inspiration as the problem or opportunity that motivates the search for solutions; ideation as the process of generating, developing and testing ideas; and implementation as the path that leads from the project stage into people’s lives. (Brown and Wyatt, 2010, p. 33)

For Brown and Wyatt, inspiration is more than just being moved to create something—more than feeling inspired, though that helps. Inspiration in this design thinking process sets out the “Why?” behind the whole endeavor. What is the issue or problem that the team is trying to address? What do they need to know about that issue or problem? What constraints do they need to be aware of? Goals and constraints provide a focus and framework for the design thinking process called “the design brief” (sometimes called a “problem statement”).

In any design thinking process, the design brief is key. The team measures the success of every idea they generate against the brief. The brief must be focused enough for the team to dig in without asking themselves “What are we doing again?” all the time, but not so narrow that the outcome seems predetermined. For example, if a design team starts off with a brief that says “improve kids’ health,” they won’t know where to begin. But if a design team starts off with a design brief that asks, “How can we encourage kids to be more physically active?” they can start finding information about what works to get kids active now or what is it about kids’ brains and attitudes that leads them to adopt or reject new behaviors. They can pull together research articles, talk to kids, teachers, and parents, and observe kids at recreation centers. The brief may also say that the

In any design thinking process, the design brief is key.

solution must be cheap to develop and use, giving the team additional criteria to shape and evaluate their ideas. Every design brief is based on a set of implicit assumptions about what is good and right and what kinds of information and research are valid.

With a design brief and lots of background information to draw upon, the team moves on to ideation. Ideation is a fancy word for coming up with ideas or brainstorming. The goal here is to synthesize what the team has learned in the inspiration phase into new insights about the problem or issue. Team members may develop a set of “design principles” based on what they have learned so far—such as, our solution needs to facilitate both group and individual play, or our solution should work for students who do not have a computer at home. These principles can be used to develop multiple solutions. Ideation involves divergent thinking—generating many different solutions based on the same information. You can think of it as a kind of informed brainstorming. The team then takes all of their ideas and gradually sorts out the ones that best fit their project brief.

What if, during the ideation phase, the team finds new information that challenges the goals set out in the brief?

What if, during the ideation phase, the team finds new information that challenges the goals set out in the brief? If that happens, the team can move back to inspiration, reframe their brief and then move on to ideation. This “moving backwards and then moving forward,” also called a feedback loop, is

central to the design process. When you hear someone say that design is “iterative,” they are referring to the fact that designers generate and test multiple solutions and in the process discover new information that may change the brief. They adjust the brief and create another set of stronger ideas and move on from there.

Once the group has identified the idea or ideas that best fit the brief, they move from ideation to implementation. In the implementation phase the team converts big ideas into “things” that can be tested and eventually manufactured, installed, or built. This is often a challenging step. How do you move from something as immaterial as an idea or concept to a physical object,

How do you move from something as immaterial as an idea or concept to a physical object, implementable system, or inhabitable place?

implementable system, or inhabitable place? To make this leap, the team begins by creating rough prototypes or mock-ups. A prototype isn’t fully operational, and it needs to be cheap and fast. As you will see in the video, paper prototypes may be

flimsy and goofy looking, but the process of making them and talking about them leads to valuable insights and more refined prototypes, which in turn give the team a stepping stone to help them move from a big idea to a more refined product. There is something about taking an idea and making something physical and tangible that sparks new ideas and also opens up new conversations in the group. Prototypes are good conversation starters with clients or users, and can also help a project team identify potential problems before rolling out their ideas.

“Prototyping in Design Thinking: How to Avoid Six Common Pitfalls,” by Rikke Dam and Teo Siang, offers practical tips for prototyping which include: work quickly, use cheap materials, don’t “fall in love” with what you make, and know that failed prototypes can yield important insights.² This [video](#), by the Academy for Innovation and Entrepreneurship at the University of Maryland, depicts the process of prototyping. The team decides to use two prototyping methods—a physical prototype and a role-play prototype to test out a system to improve the experience of biking on campus. The physical prototype gives them a way of illustrating and talking through the “Bike Buddy” system, while the role-play prototype allows them to practice sharing the idea with real people. In this (now classic) video (<https://www.youtube.com/watch?v=M66ZU2PClclM>), a team works through a design process to create a better shopping cart, ending with a prototype that can be tested out in a grocery store.³

Depending on how well the prototyping goes, a team may move forward to refining and further developing their idea or may find that they need to go back to an earlier phase. In the shopping cart example, the team will likely refine the idea further but keep the basic concepts. In the “Bike Buddy” example, the team would likely take the feedback from talking with people and consider issues of safety more carefully. Perhaps they would decide that the “buddies” need to go through safety training and that biking in busy areas like Washington, DC, is too big a jump for new riders with or without a buddy. When the team has created what they feel is a workable design based on what they learned in the prototyping phase, they’re ready to move forward with creating the final product or service. At this point they would likely hand off their idea to a discipline-specific designer, like a systems designer or landscape architect in the case of the bike-buddy idea, or a manufacturing expert in the case of the shopping cart. They might also create a communication strategy. Who needs to know about this new process or solution? What is the best way to reach them?

2. See “Prototyping in Design Thinking: How to Avoid Six Common Pitfalls” available at <https://www.interaction-design.org/literature/article/prototyping-in-design-thinking-how-to-avoid-six-common-pitfalls>.
3. See “ABC Nightline - IDEO Shopping Cart” at <https://www.youtube.com/watch?v=M66ZU2PClclM>

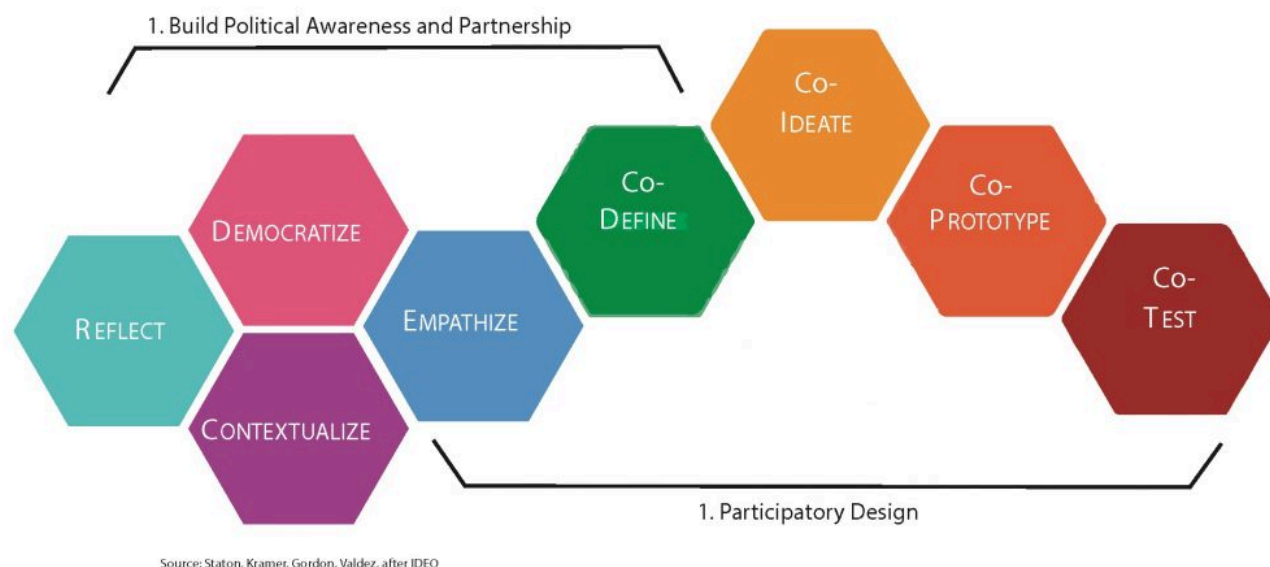


Diagram of design thinking for social justice process based on Staton, B., Gordon, P., Kramer, J., & Valdez, L. (2016). *From the Technical to the Political: Democratizing Design Thinking* (Vol. Stream 5, Article no. 5-008).

Ali Boese

Can design thinking – its process and outcomes – help make our communities and systems more just and fair?

This very brief overview of design thinking emphasized how the process unfolds from brief to implementation, but does design thinking relate to issues of equity? Can design thinking—its process and outcomes—help make our communities and systems more just and fair? In the next article you will read,

“From the Technical to the Political: Democratizing Design Thinking,” by Staton, Kramer, Gordon, and Valdez, the authors discuss exactly that. Their goal is to critique current design thinking processes and to explore the potential of design thinking as a tool for equity and social justice. They argue that existing models of design thinking often offer only technical fixes for problems that are rooted in unjust economic systems. For instance, a design thinking process aimed at helping people access healthy foods might suggest a new neighborhood grocery store without asking whether or not people can afford fresh vegetables in the first place. Their article proposes a new model for design thinking based on the IDEO model but with three new foundational steps: reflect, democratize, and contextualize.

“Reflect” requires designers to examine their positionality, “the extent to which one is privileged or oppressed along different axes of identity” (Staton, Gordon, Kramer, & Valdez, 2016, p. 10). In this model, the designer is not a neutral

...the designer is not a neutral and objective expert.

and objective expert. As we learned in Chapter 2, we all act from our own set of cultural assumptions which “creates blind spots and opportunities to harm and/or exclude design partners with less structural power...” (Staton, Gordon, Kramer, & Valdez, 2016, p. 10). In addition to helping illuminate the potential for blind spots and exclusion, an understanding of the multiple positionalities on a design team can also show the potential for building understanding and inclusion among team members. The more we understand about ourselves, the more we can find points of contact with other people.

In my experience, the process of reflection is not a one-time act. If 70% of my iceberg of experiences and assumptions is subconscious, it’s safe to assume that identifying all of my blind spots is going to take time. Last week a good friend of mine invited me to an introductory seminar on dismantling racism he was attending. I thought, wow, this person teaches classes, including a session with my own students on this issue. He is also African American. What more does he have to learn? I brought this up with one of our mutual friends who said that she always gets something out of these sessions because there are so many different ways that our personal biases work—and in every session she finds another insight that helps her better understand her own biases. Reflecting on one’s positionality can help people understand that not having experienced something yourself doesn’t mean that that thing isn’t real, and that what is considered “normal” or “good” is not the same for everyone.

...all design occurs within economic and political systems that, over hundreds of years, have perpetuated unfair and unequal access to resources and opportunities.

As we learned in Chapter 3, all design occurs within economic and political systems that, over hundreds of years, have perpetuated unfair and unequal access to resources and opportunities. In addition to helping team members identify their personal biases, reflection also allows team members to understand the unique experiences they bring to the process, and to uncover some of their limits and

strengths. In “How does your positionality bias your epistemology,” David Takacs says that when we ask how who we are shapes what we know, we can also identify and value our own experiential and intellectual assets:

By respecting the unique life experiences that each student brings to the classroom—by asserting that the broadest set of experiences is crucial to help each of us understand the topic at hand as completely as possible—we empower all students as knowledge makers....Rather than “tolerating” difference, we move to respect difference, as difference helps us understand our own view—and thus the world itself—better. From respect, we move to celebration, as we come to cherish how diverse perspectives enable us to experience the world more richly and come to know ourselves more deeply. (Takacs, p. 28-29)

So how do you go about mapping your own positionality? Where do you even begin? While it’s not often that designers or most people in general undertake this kind of self-discovery, it is a common practice among researchers who study human relations, behavior, and health. What we have been referring to as positionality, most researchers call *reflexivity*. The [Qualitative Research Guidelines Project](#) from the Robert Wood Johnson Foundation gives a succinct introduction to reflexivity. In it, you’ll find many similarities to what we talked about in Chapter 2 regarding culture and worldview. Reflexivity describes “an attitude of attending systematically to the context of knowledge construction, especially to the effect of the researcher, at every step of the research process” (Cohen & Crabtree, 2006). Many researchers try to prevent bias by working with a team rather than as an individual so that (often hidden) beliefs and values can be more easily identified and discussed or contested. They examine and describe their background and position (sometimes keeping a personal journal to reflect on their decisions), and include a summary of how their potential biases may have impacted their research in their reports and articles.

Designers can use similar methods, and since design thinking typically involves a team with different areas of expertise, there should be more opportunities to identify some of the beliefs and values that individuals bring into the process.⁴

The goal in these exchanges between team members is not to come to some kind of consensus about what is or isn’t the right world view for each member to adopt. Instead, the goal is to foster the kinds of dialog needed to uncover and discuss values, perspectives, and assumptions.⁵ For instance, if no one on the design team has had experience with poverty, they may not realize that many

...the goal is to foster the kinds of dialog needed to uncover and discuss values, perspectives and assumptions.

4. But this will depend on how safe people feel offering their opinions in the group.

5. See Reflexivity from the Qualitative Research Guidelines Project/Robert Wood Johnson Foundation at <http://www.qualres.org/HomeRefl-3703.html>

families cannot afford to purchase fresh foods and do not have access to a kitchen in which they can store and prepare fresh foods.

In the *contextualizing* step, designers examine the issue at hand in the context of ongoing “struggles for identity, culture, place, and power” (Staton, Gordon, Kramer, & Valdez, 2016, p. 10). In the example of a team working to come up with ideas to increase physical activity among kids, team members need to understand the context in which the kids live and how that context—economic, racial, gender—might impact their ability to exercise. Think back to Chapter 3, to what we learned about how cities and suburbs were built in the 20th and 21st centuries and how that continues to impact family wealth and neighborhood vitality. Today some children spend their afternoons at home alone until parents come home from work, and are not allowed outside during that time because their neighborhood is not safe. Contextualizing the design brief within the social and economic realities of the people you are designing for (and hopefully with, but more on that later), you will find constraints, but you will also find opportunities to create solutions that work for lots of different people and a chance to push your creativity own self-understanding further.

The next step, *democratizing*, challenges the notion of who gets to be the designer and who is designed for.⁶ Rather than seeing the design team as designing for someone who needs their services to solve a problem they are facing, a democratized design process values all participants as co-designers and values community expertise and creativity.

Communities at the margins have been innovating as a matter of survival and in the work of liberation since time immemorial. The very work of navigating life between forces of exploitation, violence, and neglect requires ingenuity in devising solutions around dominant social structures” (Staton, Gordon, Kramer, & Valdez, 2016, p. 11).

**...defining design as
something a singularly
creative person does and
then gives to someone else**

So what is the role for the traditional designer in a democratized design process? Designers bring resources, credibility, and influence...and offer a structured set of tools through which community members may focus their creative potential if they so choose. This is a big shift for designers who are

6. This is similar to the idea of co-operative design you read about in the article on the origins of design thinking. The terms participatory design and co-design are more commonly used today.

**is limiting, even for the
“expert.”**

generally trained to be the creative ones, and the ones with the creative ideas. But defining design as something a singularly creative person does and then giving to someone else is limiting, even

for the “expert.” The designer loses an opportunity to develop new skills and learn from people with different knowledge. What some might see as limiting their creative process, others embrace as a chance to learn and grow.

What are the barriers and limitations to Design Thinking for Social Justice (DT for SJ)? Time, money, and lack of trust are all seen as barriers to a social justice approach to design thinking. There may not be enough time and money to see a collaborative design-thinking process through. The more participants, the more ideas generated. The more ideas generated, the more time it takes to develop and evaluate those ideas. Design professionals are paid for their time as part of their contract (with the institution or company that hires them to lead the process), but community experts are often asked to participate as volunteers. This financial barrier means that it's more often middle and upper-middle income earners who can be part of co-design teams because they are able to take time off of work and hire someone to watch their kids. Some funders recognize this barrier and will pay for things like gift cards, stipends, baby-sitting, etc. But it's most often only the professionals who are paid.

Even if participants from marginalized communities are present, will they be able to participate fully? Do they feel comfortable speaking out and offering their critiques of a professional's ideas? Do they feel like their time is well spent and that there will be a concrete outcome that helps solve the problems

**If there is no money in place
to implement the ideas, has
the exercise raised false
hopes or wasted people's
time?**

they have helped to identify? If there is no money in place to implement the ideas, has the exercise raised false hopes or wasted people's time? Sometimes the design process is seen as a way to generate ideas that can then be brought to funders for implementation grants, but there are no guarantees. Is the time and energy that people give to a design thinking exercise valuable even if the design itself cannot be implemented? The authors see value in the design process because of the tools and relationships that community members may tap into in the future, but note that, in order for this to work, there need to be relationships and networks that exist beyond any singular design exercise.

This adaptation of the IDEO framework takes on three of the big challenges of equity-driven design: First, the challenge of educating design professionals about the limits and strengths of their world views and experiences and about the value

of diverse problem-solving teams. Second, the challenge of educating design professionals about the long-term patterns of disinvestment that underlie our society and all design problems. And finally, the information equity challenge, understanding whose knowledge counts and who must be part of design decision-making.

The additional steps added at the front end also have the potential to create a cascading effect on the steps that follow. How might the “inspiration” step, where the team frames the problem, change if people directly impacted by the problem are involved? As the team “contextualizes” the issue or problem, they may identify a different set of issues that need to be addressed. Having explored their own positionality/situatedness, they may be more open to ideas they may not have previously understood or valued. They may come to the ideation phase with the same brief, but may look at the same data and come up with radically different ideas on what should happen.

Who was involved in the process? Who benefited? And who was harmed?

The authors do see a weakness of DT for SJ in the fact that individual DT processes cannot shift the huge economic and social barriers to equity. Individual design projects will never bring about the scale of changes

needed to give everyone fair and just access to opportunities and resources. The authors propose that networks of designers and community members build relationships over time, look for new projects to collaborate on, and support each others’ work. Many such networks have emerged over the last ten years. Some are discipline-specific, while others, like the Design Justice Network (<http://designjusticenetwork.org/>), are interdisciplinary. As you read through their statements of principles, what do you think is directly linked to how the design process unfolds? What is linked to what gets designed in the first place? What is linked to who designs? Next read the story of how the principles were generated. Their Venn diagram poses three interrelated questions: Who was involved in the process? Who benefited? And who was harmed?⁷ We will carry these three questions forward into the next chapter as we explore discipline-specific design practices and their relationships to equity.

Works Cited

Brown, T., Wyatt, J. (2010). Design thinking for social innovation. *Stanford Social*

7. See “Generating Shared Principles from Design Justice” at <http://designjusticenetwork.org/blog/2016/generating-shared-principles>.

Innovation Review, (Winter). Retrieved from https://ssir.org/articles/entry/design_thinking_for_social_innovation

Cohen D. D. & Crabtree, B. (2006, July). Robert Wood Johnson Foundation Qualitative Research Guidelines Project. Retrieved November 13, 2018, from <http://www.qualres.org/HomeRefl-3703.html>

Staton, B., Gordon, P., Kramer, J., & Valdez, L. (2016). From the technical to the political: Democratizing design thinking (Vol. Stream 5, Article no. 5-008). Presented at the From Contested Cities to Global Urban Justice, Madrid, Spain. Retrieved from https://www.researchgate.net/publication/306107677_From_the_Technical_to_the_Political_Democratizing_Design_Thinking

Endnotes

Chapter 8 - Discipline-Specific Professional Design Processes and Equity



Landscape Architecture students exploring Mill Ruins Park in Minneapolis

In this chapter we will explore the design processes used by discipline-specific design practitioners like landscape architects, graphic designers, and interior designers. We will talk through the series of steps they use to develop, test, and implement their ideas, paying attention to the moments when their decisions may impact people's fair and just access to opportunities and resources.

First, let's go over the differences between design thinking and the processes used by discipline-specific designers. One way of distinguishing between design thinking and discipline-specific design processes is through their products or

outcomes. The product of a professional design thinking approach could be anything so long as it fits the goals and constraints set out in the brief. It could be an idea for a new app or wayfinding system or tent. In contrast, landscape architects design outdoor spaces, architects design buildings, graphic designers design visual communications, and experience designers design experiences.¹ And while a design thinking process does not necessarily end in a “ready-to-implement” solution, discipline-specific designers are expected to produce drawings and specifications that can be used by a manufacturer, printer, construction team, or programmer to create the final “product.” A design thinking team may hand over their ideas to a discipline-specific design team to move their idea along the path to reality.

The biggest differences between design thinking and professional design processes are related to time, cost, and scope. While a design thinking process might happen over the course of a day or a few weeks with a small budget to cover drawing and prototyping supplies and food, and result in ideas or products that are either fairly simple to implement or require handing off to a professional designer to refine and make real, professional design processes can happen over months or years and involve many different collaborators. Larger-scale professional design processes, like creating a new riverfront housing development and park, may involve a team of designers from different fields as well as other professional consultants like engineers, planners, archeologists, public artists, ecologists, and community engagement experts. Each team member has their own contract (or sub-contract) and all must conform to local, state, and national regulations (usually related to health, safety, accessibility, and environmental concerns).

Professionally licensed designers are legally bound to protect the “health, safety and welfare of the public”...

Some discipline-specific designers like landscape architects, interior designers, and architects are professionally licensed. To become licensed they have had to study at an “accredited” school, pass a series of exams, and fulfill an internship requirement. Professionally

licensed designers are legally bound to protect the “health, safety and welfare of the public” and they are regulated by more laws than designers in non-licensed fields like graphic design or service design.² By the time a designer is licensed in her field, she has invested a lot of time and money in her education and training.

1. Of course, landscape architects and architects also design neighborhoods and there are areas of specialization in all of the design fields listed.
2. This is not to say that graphic designers aren’t held to regulations, especially related to signage in public places and wayfinding design. This article [links to web content accessibility guidelines](#) and presents ideas for how designers might apply them in

This is important to our conversation for two reasons. First, because not everyone has the financial and social capital to achieve licensure, these fields lack diversity. Second, since many designers have amassed significant debt to pursue their education, and jobs can be scarce during economic downturns, they may not feel empowered to rigorously advocate for equity outcomes. We will look more at both of these issues as we talk through the design process.

Design thinking has its roots in an amalgamation of discipline-specific design practices, so it's not a surprise that their processes overlap. While every design field—from product design to urban design—has its own approach, most design processes follow a shared sequence.³ The designers are given or help develop a brief, and they then gather information to better understand the issues at hand, develop and test ideas by creating drawings, models, and prototypes, hand over a set of specifications to a contractor or manufacturer, and in some cases help oversee the implementation of their final design.

While every design field – from product design to urban design – has its own approach – most design processes follow a shared sequence.

The narrow focus of discipline-specific design briefs mean that individual projects do not address deep structural injustices.

Like the “inspiration” phase of design thinking, professional design processes start with a project brief—though a discipline-specific brief is rarely as open-ended and is typically handed to the designers by the client. A design thinking brief might intentionally ask a broad question in order to generate the

most ideas, like “How can we encourage kids to be more physically active?” A professional design brief, in contrast, is intentionally narrow, since someone (the city, a private client, a neighborhood organization, etc.) has already decided what needs to happen. A professional design brief might say something like “we need to redesign this specific park so that it supports a variety of physical activities for kids of all abilities,” while the discipline-specific brief sets out the what—a building, a brochure, a patient intake system, a park, etc.—and includes specific goals or requirements like a timeframe and a budget. Creating the brief is called the pre-design phase. A client may work with a designer experienced in pre-design to help

innovative ways: <https://medium.com/salesforce-ux/7-things-every-designer-needs-to-know-about-accessibility-64f105f0881b>

3. The American Society of Landscape Architects website shows a simplified version of a design process here: <https://www.asla.org/design/index.html#mainnav>

them create a well-defined brief. The narrow focus of discipline-specific design briefs mean that individual projects do not address deep structural injustices.

As you can imagine, the pre-design phase is rich with equity opportunities and challenges. Who decides what needs to happen and where? Who stands to gain? Who may suffer the impacts? All of the challenges we learned about in earlier chapters have a big impact on whether or not equity-driven design projects even make it to the designers desk. Let's say you're in charge of communications for a county social services agency and want to hire a web designer to help get the word out about a nutrition program. If you have a computer and a smart-phone at home, you might not consider that your web-based communications strategy won't work for most low-income families. You might assume that your strategy wasn't successful because people just don't care enough about nutrition to email back or that they don't need the services since they haven't signed up for them online.

4

Or let's say the decision to renovate an existing park is made by a city's Department of Parks and Recreation. How did they decide which parks get the resources? Let's say the decision is made by an individual property developer to create a new apartment building. What, if any, rules does the city have requiring that some of the units be affordable? Who has access to those units and how? Let's say the decision is made by a non-profit home for the elderly that wants to renovate their lobby. Why are they fixing the lobby and not a part of the building more directly tied to patient care?

The challenge for designers is that if a client comes to them with an approved brief, there is often little the designer can do to shift a client's thinking—even when the designer sees that, for example, the housing developer could afford to construct many more units of affordable housing but has chosen not to do so. The designer can apply for the job or choose not to apply. In fact, it is not typically the designer deciding what jobs to take on, but the design firm leader.

The challenge for designers, is that if a client comes to them with an approved brief, there is often little the designer can do to shift a client's thinking...

4. But a lot of equity issues—like benefits and risks—are in place even before a design project brief is written. In the case of a large-scale land development project, what can and can't happen on the site is already determined by something called zoning. Or there may be other constraints on what can happen there based on who owns the property or on existing planning documents.

So an individual designer working at a firm has the choice to work on the project or find another job.

But let's say a developer worked with a city to come up with a redevelopment plan for a large river-front site. They want to include some affordable and market-rate housing and a new public park. They have a design brief and are looking for designers to hire. On a project of that size they will most likely create a selection committee. As you read about the selection committee, the request for qualifications, the requests for proposals, and interview processes, do you see any points where equity issues might arise? Who gets to be on the selection committee and what values (rooted in their worldviews) do they bring? What spoken and unspoken judgments are they basing their selection on? Do they value the benefits of having a diverse group of creative problem solvers? Let's say the selection committee is committed to having a diverse group of designers with experience in equity-driven design work on the team. How diverse is the city's pool of experienced designers? Who has the resources to go to school to be an architect? Whose parents have the resources to help them out?

Once a design team is hired, members move through the steps of programming, schematic design, design development, construction documentation, and construction administration. To start, the designers gather additional information about the project and its constraints (typically called site inventory and analysis). In the case of a public park design, they may gather information on the park's main users, how people might get to the park, the types of soil at the site and whether there is any contamination from a previous use, who lives in the neighborhood, the amenities at other nearby parks, etc. What is considered important information on which to base design decisions? Again, who is involved in the planning process? How is information gathered? Which people are considered the main users of the space? What conditions—environmental, social, economic, etc.—are considered important for study? What methods are employed in the information gathering and analysis phase?

How public engagement happens matters to equity outcomes.

In the case of publicly funded work there is usually also a requirement that the designers conduct some kind of “public engagement” to solicit input on their design ideas and prototypes. How public engagement happens matters to equity

outcomes. Not everyone feels comfortable in public meetings. Not everyone has the time to be there. Not everyone has transportation to get there, or someone to watch their kids. Not everyone trusts government representatives. Not everyone believes they will be listened to.

Thinking back on the ways that planning and environmental design have unfairly

impacted communities of color and low income, it's not surprising that many people don't believe their voices will be heard. For example, most first-generation Asian immigrants in the Twin Cities have experience as refugees.⁵ They faced institutional and personal racism and the barriers of language and culture when they settled in the U.S.⁶

A friend whose parents came from a refugee camp in Thailand and who works with immigrant business owners explained the challenge of building trust this way:

A lot of people come from places where any kind of authority is as much of a problem as it is a benefit to you...anything either associated with the city or imagined to be associated with the city is to be treated with suspicion. I worked for a neighborhood organization and there were businesses owners who would usually ask the police but also us sometimes, "So when do we pay you? When do we pay you so that our place doesn't get burglarized?"⁷

As you read in the chapter on health equity, trust is key to building social capital, and social capital is key to building all forms of social, economic, and political interactions.⁸ Trust is also central to design engagement processes. So how do you build trust? Professional design teams and public agencies are increasingly partnering with community artists to help plan and facilitate public engagement meetings, or shifting from the format of a public meeting to having informal conversations with people on-site. Community-rooted artists and organizations are better able to broker relationships within groups and between groups and outside structures like public agencies.

Let's assume that the design team has worked with local artists and non-profits to come up with an engagement strategy that reaches all of the people who would be impacted by the project. At the meetings, everyone feels comfortable

5. This website of the Council on Asian Pacific Minnesotans is a great starting point for researching the experiences of Asian Pacific communities in Minnesota. <https://mn.gov/capm/resources/council-reports/>
6. For example, when the United States pulled out of Southeast Asia in 1975, they evacuated about 300 of the highest-ranking Hmong officers who fought with the U.S. and left the rest of the Hmong soldiers and their families behind to face the threat of genocide. Tens of thousands fled to Thailand. Many drowned crossing the Mekong River. Others made it to Thai refugee camps. Between 1975 and 1982, 53,700 Hmong and Laotian refugees were resettled in the United States. See: https://en.wikipedia.org/wiki/Laotian_Civil_War
7. Taken from interviews done by the author in 2016 as part of LISC's Twin Cities Creative Placemaking for Equity study.
8. See [LISC Conceptual Framework for Creative Placemaking, April 2014](#).

sharing their ideas and criticisms. The designers gather all of the feedback and take all of that information (plus all of the other information they have gathered) and start making drawings and prototypes. In the case of buildings or community designs, they will build models or generate computer models as a way to test out their ideas. Often the designers will share those drawings and prototypes to get additional feedback. Some ideas are carried forward, others can't be accommodated within the budget and construction timeline. The designers may or may not incorporate all of what they heard in the public meetings, because it may not fit the original brief, may be too costly, or may not be legally or physically possible. How do the designers decide what is important? What if the client (the developer and the city) has ideas that are at odds with what the designers heard in the public meetings? What if the city's goal is to increase tax revenue while providing a minimum of access to the river, but the goal of community members is to have lots of river access and less space for commercial use? The designers may be able to accommodate both goals on the site, and this might mean that they spend extra time (unpaid time) working out the logistics and redrawing their plans to make it happen. Or it might not be possible to do both. Typically, the decision goes to the city and the developer.

But let's say the clients decide to go with what the community wants, or that the designers find a way to accommodate both in their plan. Once the designers have come to what they and their clients believe is the best fit, they generate a set of technical drawings and digital models that can be used to build, print, code, etc. the final design product. These drawings and models are extremely detailed. They specify what materials will be used, the exact dimensions of the final products, and how they will be built, and are used to hire contractors to build the final products. Contractors are asked to submit bids for constructing the project based on these drawings. The drawings become part of a legal contract between the client, the designers, and the contractors. If it is a public project, the client may be required to go with the lowest bid. In other situations, the client may use other criteria to choose the contractor, like how much experience they have or where they are located. The same equity issues arise here as they did with the selection committee that hired the designers. Who decides? Who gets the contract? Is there a requirement that a certain amount of the contracts go to businesses owned by people of color? To businesses with a diverse staff?

During the construction or implementation phase, designers may act as on-site supervisors to make sure the project is being built according to specifications and to deal with any problems that come up. Even after the design work is completed and the drawings are handed over to the contractor, designers are legally responsible for making sure that contractors follow the design's specifications. If anything goes wrong, designers can be sued. Construction sites can be dangerous places. Depending on what materials the designers specify, construction workers may be exposed to toxic chemicals from adhesives or paints. To ensure safer

working and living environments, organizations like [Healthy Building Network](#) provide information to designers and builders on alternatives to hazardous materials.

Once construction is completed, designers sign off on the project to say that everything has been built to their specifications (or their adjusted specifications, if changes are needed along the way). The new park, community center, advertising campaign, or hospital registration system is opened and designers move on to their next projects.⁹ Of course, the reality of the design process is much messier than this. Like design thinking—which can move back and forth from inspiration to ideation to prototype many times before a solution is chosen—the design process is also iterative.

From pre-design to construction/implementation, discipline-specific design processes are tied to multiple equity issues, even more than the few pointed out here. As a landscape architecture student back in the 1990s, I didn't learn about this side of the work. While some programs had a more community-driven focus, most designers practicing today haven't had the opportunity to think through the ways in which their work can help create fair and just access to opportunities and resources for everyone. In the past ten years, social justice has received renewed attention at a batch of public interest design programs across the country where students, faculty, and practitioners are teaming up to address the gap between our professional pledge to serve “the public good” and the reality that the public we have been serving best is mainly white and often affluent. These programs are partnering with non-profits and municipalities to build community gardens, share information about proposed changes to transportation systems, rethink bus stops, and advocate for better and more affordable housing. Not all of these programs are new; many can trace their roots back to the 1970s, when designers began thinking about their role in social justice movements.

Professional networks for equity-minded designers are also springing up, some tied to a specific city and others national or even international in their membership. The Design Justice Network (<http://designjusticenetwork.org/network-principles/>), the Environmental Justice Professional Practice Network of the American Society of Landscape Architects (<https://landscapearchitecturemagazine.org/tag/social-justice/>), and Colloqate (<https://colloqate.org/about/>) are just a few.

9. Further equity issues arise after a project is constructed. Once a project is designed and built, how is it managed? Who has access to the site? Who is responsible for its maintenance and operation? How are future changes to the site handled? How, if the private sector is involved, are things like public access monitored? Who is kept out of the site? Under what circumstances? What codes of conduct will be developed for the site? How will they be enforced? Will there be security cameras? Private security guards?

Endnotes